

Appendix B Response to Comments 30-Day Comment Period Summary Lemiti

The proposed action along with a preliminary assessment (which in addition to proposed action included the need for the proposal, the alternatives considered, 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 September 8, 2015.

The responsible official has considered comments received and has developed the Lemiti Fuels Reduction Project and Forest Plan Amendment #19 Environmental Assessment 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. In the responses, section numbers refer to the Environmental Assessment unless otherwise specified.

	Comment	Response
Oregon Wild	1. Mountain pine beetles are a native species and from an ecological perspective there is nothing unusual about the local eruption. Modern ecological science tells us that large patches of dead tree are part of the natural cycle in lodgepole pine forests like this and therefore the current condition constitutes a “healthy forest condition.” There is nothing “out of whack” here. The Forest Service needs to be managing the forest based on ecosystem science.	The typical cycle of lodgepole pine succumbing to mountain pine beetle and then burning in stand replacing fires has likely occurred in this area for thousands of years. The forest is managed for a wide range of human values such as air quality and recreation as well as many other natural resource values and, in the event of a wildfire, suppression forces would be at greater risk protecting these values if no action is taken to moderate the fuels hazard (s. 1.5.1, s. 3.1). In addition to considering the latest science related to insects and fire, the Forest is managed for human uses and values according the goals and objectives of the Forest Plan as amended. The Forest plan land allocations for this area allow and encourage active management (s. 1.2.1.1).
Oregon Wild	2. Salvage logging for fire hazard reduction does not make sense. The dense young stands that will develop after salvage logging are just as much or more of a hazard than the complex and heterogeneous stands left to develop on their own. Fuel breaks will require frequent and expensive retreatment to maintain a low-hazard fuel condition.	The management of dense young trees is part of the proposed action; they will be thinned (s. 2.2). Dense young trees are already present and salvaging the dead trees will not increase the quantity or density of young trees. While some future stand maintenance is likely, it is not expected to be frequent or expensive.
Oregon Wild	3. It is unclear that salvage logging will increase public safety along roads, because salvage logging results in dense young lodgepole reprod that presents just as much or more of a safety hazard. If safety is the goal, the FS should be focusing on removing tree that present an immanent risk of falling on well-travelled roads.	The danger trees along well traveled roads have already been felled. See response to #2. The discussion of concern for public safety is not so much about danger trees falling on roads, but of flame length and heat intensity when a fire burns adjacent to the road during the evacuation of the Olallie Lake Scenic Area (s. 1.3).
Oregon Wild	4. Salvage logging is a form of regeneration harvest and will increase fire hazard.	The proposed action is a fuel treatment and will not resemble typical regeneration harvest. Fuels will be treated to reduce fire hazard and saplings that already exist will be thinned to an appropriate spacing (s. 2.2).
Oregon Wild	5. We question whether salvage logging is necessary for forest productivity. Dead trees serve a wide variety of ecosystem services,	Treatment is needed not only to provide reduced fire risk but to remove the dead trees which will fall in a jackstrawed pattern making forest management and human access impractical

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	such as wildlife habitat (biodiversity conservation), and dead trees capture, store and release water, sediment, and nutrients. Removing biomass is more likely to reduce than improve forest productivity. What will occur is just a lodgepole forest going through natural succession.	(s. 1.3, s. 3.2.1.1). Sufficient woody debris will be retained to provide for nutrient cycling (s. 3.8.7.4). The Forest plan land allocations for this area allow and encourage active management (s. 1.2.1.1).
Oregon Wild	6. The trees have low value . Why are you trying to conduct commercial logging in this setting?	The proposed action is a fuel reduction project. It is not a typical commercial logging action that is expected to generate a financial return (s. 1.5.4.2, s. 1.8.1.5). However the site is capable of growing trees and is part of the Matrix land allocation; which allows and encourages active management (s. 1.2.1.1).
Oregon Wild	7. We do not see a compelling rationale to actively promote big game forest. This large area of natural tree mortality will produce abundant forest without any salvage logging.	Some of the desired features of B-11 Deer and Elk Summer Range are not achievable due to the insect killed trees (s. 1.2.1.1). The project would reduce the jackstrawed pattern of tree fall which inhibits animal movement and access and will add some grass seed to enhance forage quality. It will also close the temporary roads to vehicle access. Forage is more important to animal health than cover. Hiding cover will soon return as saplings grow. (s. 3.4)
Oregon Wild	8. Oregon Wild supports maintenance of roads and culverts that are needed on the forest, but those activities should not come with the cost of damaged forest ecosystems. The FS has a responsibility to maintain or remove roads and culverts. Fulfilling this responsibility toward forest road infrastructure should not be used as a “purpose and need” for destructive salvage logging.	Road maintenance and the repair of culverts are not part of the purpose and need of this project; they are described as opportunities (s. 1.3). The Forest is not pursuing this project for the purpose of upgrading roads. Due to declining road maintenance budgets, some segments of the current road network receive minimal levels of maintenance. Longer intervals between maintenance with reduced funding make it difficult for low-clearance vehicles to access parts of the Forest. As with all other timber management projects, there is the opportunity to supplement appropriated funds and accomplish some road work while achieving desired fuel reductions. (s. 3.11)
Oregon Wild	9. Oregon Wild is strongly opposed to building new roads . Temporary roads are temporary in name only. The effects on soil, vegetation, water, and wildlife can be long-lasting.	The term ‘temporary road’ is used because it is contractual language describing a road that is built by the operator and then closed with no intention of it becoming one of the Forest’s system of maintained roads. There is no presumption that the effects would be temporary. The effect of new temporary roads was found to be minimal in this landscape. The terrain is relatively flat resulting in low impacts to water quality. The roads will be closed and decompacted after use allowing rapid revegetation. (s. 1.8.1.4, s. 2.2.3)
Oregon Wild	10. This project requires a forest plan amendment and exceptions for 13 standards and guidelines. This should trigger an EIS. This kind of logging is simply not contemplated in the forest plan. The FS knew or should have known that lodgepole grows and dies in cycles like this. There is nothing surprising about what the forest is doing here. We urge the Forest Service to just follow the forest plan instead of adopting a forest plan amendment.	The Forest Plan as amended does recognize that events such as floods, fire and insect infestations occur and provided sufficient flexibility to address these circumstances. The Forest Plan contains overarching goals and desired future conditions with standards and guidelines that were developed with flexibility to guide projects to meet Forest goals. That flexibility is used here where exceptions and project level amendments are proposed where needed to meet overarching Forest Plan goals and objectives. (s. 1.6.1, s. 1.6.2, s. 3.1.6) Forest plans are amended when needs arise (this flexibility is provided by the National Forest Management Act); the Mt. Hood Forest Plan has already been amended 18 times to address changed conditions. It would not be prudent to presume that the original Forest Plan from 1990 could be implemented without amendment, disregarding changes such as the listing of threatened species. The current amendment and exceptions have been carefully designed to achieve Forest Plan goals while responding to the local situation of insect killed trees and elevated fire hazard (s. 2.2.7.1&2). An environmental impact statement is not needed because no significant effects were found.
Oregon	11. We are particularly concerned about waiving requirements related	The project will only remove small dead trees. Large snags are not common but would be

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Wild	to snags and dead wood. Abundant dead wood is a natural feature of post-disturbance forests. Salvage logging therefore does not mimic natural processes. We need more snags not fewer. There will be a snag gap exacerbated by salvage that removes large snags.	retained and some large trees would be topped to help provide some snag habitat. The small dead lodgepole pine trees will fall within the next decade even with no action. There will be abundant small snags at the landscape scale in the areas that are not treated such as riparian reserves, late-successional reserves and wilderness; these will also fall within the next decade. (s. 3.3.2)
Oregon Wild	12. The Forest Service expects to realize certain ecological benefits from fuel reduction and fire suppression. This expectation is overly optimistic and improbable. The FS cannot predict where or when fire will occur in this forest type with a relatively long and unpredictable fire return interval, so fuel reduction will adversely modify many more acres than will receive any benefit from fuel reduction.	While there may be ecological benefits from the project, the purpose and need focusses on reducing potential wildfire hazard to protect resources including those on the Confederated Tribes of Warm Springs Reservation, reducing risk to fire suppression forces and the public and forest productivity (s. 1.3, s. 3.1.4.1). The analysis did not find that treatment areas would be adversely modified but found the fuel treatments appropriate with minimal impact.
Oregon Wild	13. The EA says “If soil moisture exceeds 20%, waivers may be considered for operations on approved skid trails as long as ruts do not exceed 12 inches in depth over more than 10 percent of a designated skid trail system.” This design standard allows unacceptable soil damage.	This level of soil impact is described in Forest Plan standards and guidelines. (FW-024). Primary skid trails will be decompacted after use. The project is also consistent with other Forest Plan soil standards and guidelines. (s. 3.8)
Oregon Wild	14. This project includes a substantial amount of reopening of old logging roads that were decommissioned within the last 10 years. Many of the stands in the project area were also logged not that long ago. Continuously going back and reopening these road beds will never recover. It is also an incredibly inefficient use of tax payer money.	Approximately 1.6 miles of old system roads that were decommissioned would be reused. The Forest considered these alignments and found that it made sense to reuse them as temporary roads instead of building new roads in a different place. Where temporary road alignments are located on appropriate landforms they are likely to be reused again in the future. (s. 2.2.3) Tax money is not used to open and reclose these roads; the work is covered by an appraisal allowance and is supported by the value of the forest products removed.
Oregon Wild	15. We suggest reducing the number of decommissioned roads that are proposed to be reopened. We suggest dropping the new temporary roads all together and limit logging to areas to either existing open roads or a minimum number of reopened temp roads.	This was considered (s. 2.3.2). The remaining treatments would be ineffective and would not meet the purpose and need. The impacts and benefits of this approach are documented in the No-Action Alternative.
Oregon Wild	16. Too much of this project proposes logging in roadless areas 1,000 acres and larger. We suggest focusing any thinning in areas that are outside of the roadless areas. Specifically units 18, 6, 28, 26, 24, and 4 have significant overlap with roadless areas.	None of the project overlaps roadless areas (s. 3.6.2). Unroaded and undeveloped values are addressed in section 3.6. The values associated with these areas were found to not be substantial because portions were logged before and because of the stands of dead trees.
Oregon Wild	17. This project focuses on logging lodgepole stands with high mortality. Based on recent aerial photos unit 10 does not appear to have significant mortality and was thinned already in the recent past. What is the specific justification for logging this unit?	Almost all of the lodgepole pine trees in unit 10 are dead. Unit 10 is part of a suite of fuel treatments that are proposed to meet the purpose and need.
Corkran	18. This project seems to lie wholly within the Mountain Hemlock zone, a notoriously difficult place for growing commercially valuable timber. Timber management is uneconomic because of poor soils, short growing seasons, drought and fire frequency. It is possible areas like the Lemiti basin will ultimately be dropped from the timber base as not worth the money for timber management.	The Forest is not proposing this project to generate financial return but to respond to the insect infestation and fire hazard (s. 1.5.4.2). In terms of long-term management, the project area is considered suitable for timber management and even though growth rates are slower than in lower elevations, it is likely that trees can be successfully grown there to meet resource needs described for the various land allocations and to provide future timber. (s. 3.8)
Corkran	19. The goal of minimizing impacts from fire conflict with the need for large quantities of woody debris for long-term site productivity.	The project will retain sufficient woody debris to provide for long-term productivity. Intense wildfire can impact soil productivity by burning duff and fine fuels. Fuel treatments would result in lower intensity fire which would be easier to control and would have less impact to

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		soils. (s. 3.8.7)
Corkran	20. Heavy machinery would damage young white pines and make them more susceptible to blister rust.	There are very few white pine trees present. Most of the saplings are lodgepole pine and mountain hemlock neither of which gets blister rust. Saplings are relatively flexible and not typically damaged severely by equipment. If some are damaged they would likely be cut during the thinning operation; there are currently many times more seedlings and saplings present than needed for full stocking. (s. 2.2, s. 3.2)
Corkran	21. Fire fighter safety depends on many factors. Fuel loading is only one. Fire fighters can be safe by backing away from heavy fuels, using different tactics or allowing fires to burn.	There are many factors that contribute to the safety of fire fighters; fuel loading is only one of these factors. When flame lengths are shorter, direct attack tactics can be used that limit the size of the fire. If indirect tactics are used the fire will be bigger and likely have greater intensity. Safety is always paramount. Suppression of all fires in this area is required. (s. 3.1)
Corkran	22. The project area is no more combustibile than other areas along road 4220 which lead to the Olallie Scenic Area. The project will make little difference in improving public safety .	The Forest has chosen to focus on the most intense area of tree mortality for a number of reasons. While the Forest recognizes there are fuels issues elsewhere, this project has been focused on this area at this time. (s. 1.5.4) It would not be prudent to refrain from acting until all hazardous areas could be addressed in one planning effort. No comments were received advocating treatment of the areas closer to Olallie Lake.
Corkran	23. When the dead trees fall into jackstrawed piles the increased fire hazard will only last for 10 to 15 years until snow, decay and gravity force them to the forest floor. So the proposed fuel reductions will be useful for easing fire control for a limited period .	Presuming the area does not burn, it would likely take much longer for jackstrawed trees to rest on the ground. With no action, most of the trees would be propped up off the ground, would be very dry, and would decompose very slowly. With the propose action, the rate of decomposition rate of jackstrawed trees can be observed over time in the riparian reserve and the wilderness where similar stands exist but would not be treated.
Corkran	24. The EA contains no ecological description of the no-action alternative if fire does not occur . If left in place, the down lodgepole will be the sources of nutrients for development of a thick, moisture retaining forest. Mountain hemlock would take over.	The likely no-action scenario was described (s. 3.1.1, s. 3.1.4.1 & s. 3.2.1.1). Because of the accumulation of fuels and jackstrawed trees, the area's propensity for lightning storms, and the drought conditions exacerbated by climate change, the area has a high likelihood of burning with no action before the conversion to mountain hemlock could occur.
Corkran	25. The EA contains no ecological description of the no-action alternative if fire does occur . The burned, partially consumed or charred logs would provide the substrate, nutrients, duff and moisture holding capacity for future regeneration.	The likely no-action scenario was described (s. 3.1.1, s. 3.1.4.1 & s. 3.2.1.1). The fire would also kill all of the current seedlings and saplings and potentially move into other mature stands affecting resources and spotted owls.
Corkran	26. Repeated fires with no action would restore huckleberry fields lost during the era of fire suppression.	The project area has not skipped a fire interval due to fire suppression. Stand replacing fires typically occur every 100 years in this fire regime. Since lodgepole stands regenerate quickly after fire, open fields of huckleberry are not likely in this area. (s. 3.1.1)
Corkran	27. We can agree with the assumption that forests will burn. But when, how, at what scale and with what intensity and what effects are so variable that basing management upon the single assumption that any fire will be cataclysmic, stand replacing event ignores the many possible other fire outcomes .	The fire science is well understood. Stand replacing fires typically occur every 100 years in this fire regime. Local fire experts recommend fuel reduction treatment as soon as possible to address a problem that is widespread across the west. Fire behavior has been so extreme that it is not prudent to delay treatment in the face of such heavy fuel loads. (s. 3.1)
Corkran	28. The project should be suspended until the Forest Plan is revised.	The impacts and benefits of this approach are documented in the No-Action Alternative.
Interfor	29. This project, unfortunately, should have been done years ago (Cascade Crest Fuel Break) when it was first proposed by the Confederated Tribes of the Warm Springs Reservation (CTWSR) under the authority of the Tribal Forest Protection Act. Had the agency moved then, this project would have had some commercial value to help offset the costs of analysis, preparation, and administration. Unfortunately, now it is too late. Though the dead	The Forest understands the reduction of product value resulting from unfortunate delays (s. 1.5.4).

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	fuels need to be removed, there is virtually no commercial value.	
Interfor	30. It would be inappropriate to count this estimated 17 million board feet as part of your annual forest product target accomplishment . Page 173 states “The purpose and need (s. 1.3) is not solely to create jobs but to provide forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies.” Granted this work may provide jobs but it does nothing to provide forest products. This material will serve no purpose to maintaining local industry infrastructure and those dependent upon it for their jobs.	The forest product removed would primarily be in the form of chips or firewood (s. 1.5.4.2). The allocation of target accomplishment is outside the scope of this analysis.
Bark	31. Because of the lack of a known positive relationship between mountain pine beetles and fires, several authors have recommended that beetle-kill management priorities be given to areas of human infrastructure such as near homes, roads or campgrounds. (several documents were cited)	Bark did not provide the documents cited. Local fire experts have examined the site-specific situation and have found that treatments in the Lemiti area are warranted given the conditions of the fuels, the imminent falling of trees in jackstrawed patterns, the ingrowth of saplings and the proximity to the Confederated Tribes of Warm Springs Reservation. (s. 1.5.1, s. 3.1)
Bark	32. Areas which are currently unroaded and undeveloped would have stumps, skid trails, temporary roads and other signs of active management. It is well established that roadless areas generally have lower potential for high-intensity fires than roaded areas in large part because they are less prone to human caused ignitions. The relatively flat topography at Lemiti mixed with the pattern of breached or circumvented closures in the upper Clackamas is cause for concern. Several of these 1,000 acre areas have been identified across MHNH and should receive the same protections as 5,000 acre roadless areas to maximize the amount of landscape not contributing sedimentation to watersheds. Please consider moving forward with this project in a way that does not require building roads into significantly large roadless areas (1,000 acres or larger).	The Forest has many areas such as Wildernesses where ecological processes and unroaded character occur. Human caused ignitions will not likely increase because the temporary roads that are constructed or reopened to facilitate fuel treatments will be closed and rehabilitated afterward to block use by motorized vehicles. Several years ago some roads in this area were blocked and these have successfully prevented vehicle use. (s. 2.2.3) The analysis of unroaded and undeveloped character found the impacts would not be substantial and that the fuel treatments are warranted (s. 3.6). The potential for sedimentation of streams was found to be low with the proposed action but higher in the event of an intense wildfire (s. 3.9.3.4).
Bark	33. In previous projects Mt. Hood NF has planned, it has become clear that roads are only closed or rehabilitated when and if funds are available in the future . With Lemiti, the PA states that “some elements of this fuel reduction project would likely receive supplemental funding from other sources.” Would restorative road work at Lemiti Butte be funded by sources that are not yet confirmed? If so, the FS cannot assume the ecological benefits of road decommissioning will actually occur, and should acknowledge this in the Decision Notice. We encourage that the Forest Service to create a clear timeline for road closures and removals at Lemiti Butte so the public can have the assurance that these road closures will occur.	Temporary roads are not built or rehabilitated using appropriated funds from the agency budget. The work is covered by an appraisal allowance and is supported by the value of the forest products removed. The rehabilitation of temporary roads is required by the contract and is not contingent upon receiving money from an outside source.
Bark	34. It seems inevitable that in the proposed fuel break, as well as in other heavily cut areas, this project would create a dense lodgepole pine structure across a much larger area. To convert these forest stands into young, dense ponderosa pine along the road - which is the	The dense stand of saplings is already present. With no action this dense roadside stand would not be treated, but with the proposed action they would be thinned to a more appropriate spacing. There is no ponderosa pine in this area. The fuels on the ground along the road will be piled and burned where it exceeds 10-15 tons per acre. The fuel break

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	most likely ignition source - will increase the fire risk, not decrease it. Also, logging typically results in many fine fuels left on the ground - which again can increase, rather than decrease the risk of spreading fire. Bark recommends that along with retaining green trees at a spacing of 12 feet at the maximum, the FS adopt a 21-inch diameter limit on trees cut within these planned fuel breaks.	treatment will remove the smaller trees and retain the larger live trees. Diameter limits are not used because a one-size-fits-all diameter does not adequately address spacing and ladder fuel treatments. (s. 2.2)
Bark	35. In response to public input, the PA states, “In the lodgepole pine stand type, it is very unlikely that stands would transition to old growth because of the cyclic nature of the interaction of beetles and fire.” However, the Lemiti area may be in the process of transitioning away from this stated lodgepole pine dominated stand type. We have seen that in many areas there is much greater than 10% mountain hemlock in the understory. Bark believes that along with retaining green trees at a spacing of no more than 12 feet, the FS adopt a 21-inch diameter limit on both green trees and snags (including lodgepole) throughout this project area.	The presence of mountain hemlock saplings in the understory is not an indication that the stand is transitioning to old growth. During sapling thinning, species other than lodgepole will be favored for diversity. The likelihood of saplings surviving to maturity would be greater with fuel treatment compared to no action. Species composition is not the primary factor influencing fire regimes or fire return intervals. (s. 3.1) A 15-foot spacing is prescribed for sapling thinning. In the fuel break area, a 12-foot spacing is prescribed adjacent to the road to create a shaded fuel break and to minimize visual impacts. Diameter limits are not used because a one-size-fits-all diameter does not adequately address spacing and ladder fuel treatments. (s. 2.2)
Bark	36. In areas of smaller pockets (10-30 trees), Bark recommends placing a “ skip ” around groups of multiple intact green conifers with less lodgepole mortality, to protect the diversity that exists within these pockets of mixed conifers.	Skips are not prescribed because the ladder fuels that would remain would put the live trees at greater risk of crown fire (s. 3.1).
Bark	37. Since Unit 22 demonstrates such a departure from what the PA describes as a primarily dense standing lodgepole pine with a “thick carpet of young seedlings and saplings” we recommend dropping this unit along with the new road proposed to access it.	Section 2.2 describes that not all fuel treatment areas look alike. The suite of proposed treatments is designed to achieve the desired hazard reduction. This unit is dense with ladder fuels and is an important element of the proposed action.
Bark	38. Because it is the smallest treatment unit proposed, and includes mature live trees similar to nearby areas already dropped from the treatment areas and similarly demonstrate a departure from what the PA describes as a primarily dense standing lodgepole pine with a “thick carpet of young seedlings and saplings” Bark recommends removing Unit 14 from the project.	Section 2.2 describes that not all fuel treatment areas look alike. The suite of proposed treatments is designed to achieve the desired hazard reduction. This unit is dense with ladder fuels and is an important element of the proposed action.
Bark	39. The Lemiti Butte PA does not state any information on the presence of bat species or habitat. Bark requests additional information about any bat species of concern.	EAs are not intended to be encyclopedic but a brief description of the key resources being affected by the proposed action. Bats listed as sensitive species are addressed in the Biological Evaluation including Townsend’s big-eared bat and fringed myotis. Since the project was found to have no impact on these species the wildlife biologist chose to focus discussion in the EA on other species.
Bark	40. This project seems to make very little economic sense, and the PA does not provide any information to explain how the FS will pay for the road building and decommissioning in this project, or the slash treatment and ongoing maintenance of the fuel break. In the Decision Notice, please explain how the project will be funded, including specific amounts from the different Budget Line Items in the MHN annual budget, and specifically explain the funding sources for road decommissioning and rehabilitation.	The Forest is not proposing this project to generate financial return but to respond to the insect infestation and fire hazard (s. 1.5.4.2). Temporary roads are not built or rehabilitated using appropriated funds from the agency budget. The work is covered by an appraisal allowance and is supported by the value of the forest products removed. The rehabilitation of temporary roads is required by the contract and is not contingent upon receiving money from an outside source.
Bark	41. It appears that every time the Mt. Hood LRMP contains a	The Forest Plan contains overarching goals and desired future conditions. The standards and

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	standard that the Forest Service did not want to follow in this project, it simply amended or exempted itself from the standard. This process continues a concerning pattern and practice of sale planners disregarding the Forest Plan standards that protect visual and ecological resources when they might curtail agency action.	guidelines were designed with flexibility to guide projects to meet Forest goals. That flexibility is used here where exceptions and project level amendments are proposed where needed to meet overarching Forest Plan goals and objectives. (s. 1.6.1, s. 1.6.2, s. 3.1.6) Forest plans are amended when needs arise (this flexibility is provided by the National Forest Management Act); the Mt. Hood Forest Plan has already been amended 18 times to address changed conditions. The current amendment and exceptions have been carefully designed to achieve Forest Plan goals while responding to the local situation of insect killed trees and elevated fire hazard (s. 2.2.7.1&2).
Bark	42. Bark is particularly concerned about all the amendments that move compliance with snag and other habitat standards from applying on a site level to a landscape level. How does the Forest Service define “landscape”? What is the acreage? In this acreage, how much of it contains the type of snag landscape the Forest Service intends to remove with the Lemiti Project? How would removal of all of the pine snags at the site level affect the wildlife that depends on it? How close in proximity is the equivalent habitat in the landscape?	The snag analysis describes the sufficiency of snags at the landscape scale to meet the needs of snag dependent species. Even with no action the dead lodgepole pine trees will fall within 10 years. (s. 3.3)
Bark	43. The Forest Service suggests that it will create some snags by topping live trees after the project is complete. However, here is a significant time lag between the creation of snags and their utility as habitat. A created snag is not interchangeable with an already existing snag as regards wildlife habitat needs. Instead of removing all pine snags, then creating new ones (eventually) the Forest Service should comply with snag and down wood retention standards at the site level.	Snags that would be removed by the proposed fuel treatment are small and will fall within 10 years. The proposal to top live trees is an attempt to address the lack of large snags in the project area and is not intended to replace small snag habitat. (s. 3.3)
Bark	44. At the very least, if the Forest Service insists on adopting thirteen exceptions or amendments to its Forest Plan, the impact of these amendments should be better analyzed in an EIS .	An environmental impact statement is not warranted because no significant impacts were found. (s. 3)
Bark	45. Bark was very surprised to find many trees already felled in what we believe to be on or adjacent to the proposed road in Unit 13. On a site visit on August 26, 2015, Bark staff and volunteers found many recently felled trees within the proposed timber sale unit. This premature felling would be a clear instance of the Forest Service making an irreversible and irretrievable commitment of resources prior to making its final decision.	The trees felled in this area were not part of the Lemiti Fuel Reduction Project. The EA describes in several places that danger trees have been felled where appropriate.
Bark	46. Warm Springs is currently in a Memorandum of Understanding that half of the needed woody debris (biomass) for their energy plant would originate from national forest lands within 75 miles of the plant. Although it was not explicitly mentioned in the Lemiti Butte PA, we understand from conversations with the Forest Service and the tribes during the planning of the Cascades Crest Fuel Break that logging the trees in this area may be fulfilling this commitment in part.	The EA does not specify the eventual use of the forest products removed. This is outside the scope of this analysis.
Bark	47. Bark has some key suggestions for moving forward with the Lemiti Butte project, and request that the agency take these	Consideration of these suggestions is discussed in section 2.3.

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	<p>suggestions as separate alternatives or combinations of alternatives which the agency can then assess for their economic feasibility and value.</p> <ol style="list-style-type: none"> 1. Provide a clear timeline and funding mechanism for road closures and removals at Lemiti Butte and include in EA; 2. Explain how the project will be funded, including specific amounts from the different Budget Line Items in the MHNH annual budget; 3. Consider moving forward with this project in a way that does not require building roads into significantly large roadless areas (1,000 acres or more); 4. Establish a 21-inch diameter limit on cutting trees within fuel breaks; 5. Establish a 21-inch diameter limit on cutting both green trees and snags (including lodgepole) in proposed treatment areas; 6. Retain a viable understory of mixed conifer species including seedlings and saplings in all units; 7. Place “skips” around groups of multiple intact green conifers with less lodgepole mortality; 8. Remove Unit 22; and 9. Remove Unit 14. 	
Walker	<p>48. Stop Stop Stop!!!</p> <p>Just stop all the destruction -- all the logging, clearing, thinning, selling, roadbuilding, killing, digging, "improving," and leave our precious few natural places alone! Get away entirely -- we don't trust you to do the right thing.</p>	The impacts and benefits of this approach are documented in the No-Action Alternative.
Kaufman	<p>49. Logging near Olallie Lakes – NO! Please sir, please stop the logging around this area. Given climate change and all the recent fires, can we please stop cutting down living trees?</p>	The impacts and benefits of this approach are documented in the No-Action Alternative. The project is not near Olallie Lake. The focus of the project is on stands of dead lodgepole pine.

Response to Comments
Scoping Summary
Lemiti

	Comment	Response
Oregon Wild	<p>1. Mountain pine beetles are a native species and from an ecological perspective there is nothing unusual about the local irruption around Lemiti Butte. Patches of forest mortality are a natural feature of dynamic forests. Patches of high mortality provide unique habitat attributes, such as sun-drenched complex woody structure and abundant opportunities for cavity associated species that are less available in green forests or areas that are salvage logged.</p>	Sufficient quantities of snags will be retained in the project area and across the landscape to provide for snag dependent species. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment. The typical cycle of lodgepole pine succumbing to mountain pine beetle and then burning in stand replacing fires has likely occurred in

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		this area for thousands of years. However, allowing wildfires to burn is not the goal for this area at this time. The forest is managed for a wide range of human and resource values and, in the event of a wildfire, suppression forces would be at greater risk protecting these values if no action is taken to moderate the fuels hazard.
Oregon Wild	2. Salvage logging causes ecological harms that are difficult to mitigate. Places where stand replacing mortality has occurred are enjoying a brief abundance of snags, but the long-term consequences of extensive mortality is to deplete the pool of green trees from which future snags can be created, thus resulting in a future "snag gap." salvage logging will exacerbate the snag gap by removing some trees that would otherwise persist and help mitigate that gap. No one can predict which snags are most likely to persist the longest so it's best to retain all large snags.	Dead lodgepole pine trees are relatively small (4-16 inches diameter) and do not stand very long after dying. These are not considered large snags nor would they result in large woody debris when they fall. The Forest Plan indicates that large snags are those over 20 inches diameter. Sufficient quantities of snags and down logs will be retained in the project area and across the landscape to provide for species dependent on these habitat features. The "snag gap" described would occur even with no action.
Oregon Wild	3. The forests that are being affected by the mountain pine beetles will recover, in fact, they are already recovering , and if they are NOT salvage logged, they will be more complex and more diverse than if they are salvage logged. Complex and diverse old forests are most likely to develop from complex and diverse young forests, not from structurally simplified stands that result from salvage logging.	While seedlings and saplings have begun to grow in this area, they are not likely to survive to maturity if fuels treatments are not completed to reduce the risk of small fires becoming large. In the lodgepole pine stand type, it is very unlikely that stands would transition to old growth because of the cyclic nature of the interaction of beetles and fire. The goal of the project is not restoration but to reduce fuels to minimize resource impacts from fire and provide for enhanced firefighter safety, while meeting Forest goals of sustainably providing forest products.
Oregon Wild	4. In much of the project area, the forests have either already been thinned and any further thinning would just turn them into a regen harvest, or if this project intends to treat places that have not been thinned but have some mortality, these areas are well on their way to recovery with a diverse understory that has started growing and would be significantly set back if the area was logged.	The understory is dominated by lodgepole pine seedlings; it would remain fully stocked after treatment.
Oregon Wild	5. Stand replacing fire would be characteristic in relatively high elevation forest types like those found in the project area. Manipulating fuels to avoid stand replacing fire is unlikely to be successful and may not be an ecologically desired outcome. Fire return intervals are also relatively long and unpredictable in this landscape, so from a purely statistical standpoint it is unlikely that the proposed fuel reduction treatments will experience fire (and provide desired benefits) during the brief time that treatments may be effective (i.e., before fuels regrow).	Agency fire personnel have experience in this area with suppression of large lightning caused fires in similar fuel types and believe that it is highly likely that this area will experience extreme fire behavior soon, a risk that increases when the dead lodgepole pine begin to fall. Part of the proposed action is to manage the regrowth density to extend the duration of effective fuel treatments. Even with fuel treatments, wildfires are still likely to occur in this area, particularly in untreated areas. The intent is to reduce the intensity of a fire so that fire suppression forces can safely operate to keep fires small. With no action, it is highly likely that a fire would burn in this area.
Oregon Wild	6. This area is not located in close proximity to homes and communities. Fuel reduction efforts should be prioritized near communities, not up in high elevation forests. "Fuel" is also "habitat" so fuel reduction is habitat reduction. The NEPA analysis must carefully weigh the certain adverse effects of logging on habitat against the speculative and uncertain benefits of fuel reduction.	The Forest has undertaken hazard reduction in the wildland/urban interface. However, this project is designed in cooperation with the tribes to protect the resources in this area. It was developed because large scale wildfires are likely to occur in this area, and when they do occur, Forest and tribal resources would be damaged.
Oregon Wild	7. Lemiti Butte may be near the Warm Springs Reservation boundary but it is not near the populated areas of the reservation. Most resources of concern to the public (such as habitat, water, and carbon) on the national forest here would be	The area may be a long distance from the Portland metro area, but the project is in the "back yard" of tribal members who live and work there. Additionally, perceived "remoteness" in and of itself does not set the

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	best served by restoring natural ecological process, and avoiding industrial disturbances that would disturb soil and vegetation and disrupt natural processes. Remote places like this are relatively good places to let natural processes play out without significant intervention. Patches of accumulated dead trees are not unnatural in these forests.	desired conditions, goals and objectives for a segment of the Forest. This area is not designated as Wilderness.
Oregon Wild	8. The project area includes some ecologically significant unroaded areas that should be conserved and where natural ecological processes should be allowed to flourish. Unmanaged unroaded areas provide certain important values (such as large snags) that are not provided as well in roaded and managed areas.	Dead lodgepole pine are relatively small and do not qualify as large snags. Wilderness areas are places where natural processes play out. The project area is not unroaded, it contains 6.5 miles of roads.
Oregon Wild	9. Along the crest of the Cascades largely intact unroaded habitat extends from the WA border to the CA border, with the main gap being in the upper Clackamas Watershed. Lemiti Butte is one of the few unroaded areas in the upper Clackamas along the crest of the Cascades and thus the unroaded character of these areas is even more important.	The Forest has many areas such as Wildernesses where ecological processes and unroaded character occur. The goals for the project area can be achieved with temporary roads to gain access for fuels treatments. These roads would be rehabilitated upon completion of those treatments.
Oregon Wild	10. Logging will expand vehicle access, create openings, and remove and delay attainment of big game cover values.	The goals for the project area can be achieved with temporary roads to gain access for fuels treatments. These roads would be rehabilitated upon completion of those treatments.
Oregon Wild	11. Logging is prohibited in riparian reserves and should be avoided here.	Fuel treatments are not proposed in riparian reserves.
Oregon Wild	12. The FS already has too many roads. Construction of new roads and reopening of closed roads should be avoided.	The temporary roads would be rehabilitated upon completion of treatments.
Oregon Wild	13. The FS should give careful consideration to sensitive wildlife (such as blackbacked woodpecker) that live in and depend upon messy forests that humans might not prefer.	Sufficient quantities of snags will be retained in the project area and across the landscape to provide for snag dependent species. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment. The typical cycle of lodgepole pine succumbing to mountain pine beetle and then burning in stand replacing fires has likely occurred in this area for thousands of years. However, allowing wildfires to burn is not the goal for this area at this time. The forest is managed for a wide range of human and resource values and, in the event of a wildfire, suppression forces would be at greater risk protecting these values if no action is taken to moderate the fuels hazard.
ODFW	14. The proposed action estimates that approximately eight miles of new temporary and previously decommissioned road would be reconstructed and then obliterated after use. Invasive plants commonly occur in areas disturbed by timber harvest activities and road construction. The Oregon Conservation Strategy (OCS) lists invasive species as a key conservation issue and identifies Armenian blackberry, Evergreen blackberry, Scot's broom, Japanese knotweed, Canada thistle and Common gorse as invasive plants with negative impacts to wildlife habitats. Control of invasive plants in wildlife habitat is identified in the OCS as most beneficial when weed control helps establish high quality forage species and includes seeding as a control option. ODFW is recommending the establishment of nutritional forbs and grasses for all occurrences of exposed or disturbed soil in road construction and renovation, rights-of-way, at landings and in skid trails and yarding corridors to benefit foraging wildlife and pollinators. Further, ODFW is	The project will contain Project Design Criteria to minimize the spread of invasive plants including the cleaning of equipment before coming to the Forest. The project includes seeding with native grasses to enhance forage quality.

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	suggesting the recommendation that service contracts associated with the proposed project include provisions to minimize the introduction and spread of invasive plants by off-road equipment.	
ODFW	15. ODFW encourages the use of security measures to prevent unauthorized off-highway motor vehicle use during operations and barricading potential routes after operations are completed.	Temporary roads would be rehabilitated and blocked sufficiently to discourage OHV use.
ODFW	16. The project area and surrounding forest contain deer and elk summer range. Emerging research demonstrates that the quality of summer forage is more critical to winter survival than previously thought. Elk meet their nutritional requirements by selecting from a variety of available plant species including grasses, forbs and woody plants. If forage quality fails to meet nutritional requirements in the summer and late fall, physical condition may deteriorate in winter, leaving animals more susceptible to disease, predation and weather related death. Quantity and quality of summer habitat influence the mortality of deer in a similar way. ODFW is recommending an increase in early seral habitat components and foraging opportunities for big game, grouse and other early seral associated species in the project area.	The proposed action would spread native forage seed to enhance forage quality and quantity.
ODFW	17. When falling, yarding, hauling and skidding operations take place during the months of May and June, ODFW suggests that MHNH caution operators to be aware of newborn wildlife , especially deer and elk. If found incidental to operations, ODFW is recommending the restriction or suspension of operations for two to three weeks or until the young are able to move away from the area on their own.	The project is not likely to be operating during this time of year.
ODFW	18. ODFW is recommending the creation or preservation of wildlife trees with special characteristics that provide valuable habitat for wildlife including, but not limited to, snags. Wildlife trees provide opportunities for feeding, nesting, sheltering, overwintering and perching and include habitat features such as spikes, forks, broken tops, cavities, loose bark, and large platforms or brooms.	Snags and wildlife trees other than lodgepole pine would be retained in fuel treatment units where safety permits. Also lodgepole pine snags would be retained in riparian reserves and other non-treated stands.
Corkran	19. We have several concerns about the viability of the Lemiti Salvage Project, not least of which is its economic feasibility . This project seems to lie wholly within the Tsuga Mertensiana zone, a notoriously difficult place for growing commercially valuable timber. It is possible areas like the Lemiti basin will ultimately be dropped from the timber base as not worth the money for timber management, or worth the money to fight fire.	The Forest is concerned about economic viability and will examine all aspects of the project to make sure they are needed and designed as efficiently as possible. Traditionally, the value of timber removed is relied upon to cover the costs of its removal and other project elements. Given that this project is a fuels treatment action, the value of the salvaged trees may only cover part of the treatment. The project area is considered suitable for timber management and even though growth rates are slower than in lower elevations, it is likely that trees can be successfully grown there to meet resource needs described for the various land allocations and to provide future timber.
Corkran	20. There is significant disagreement about fire severity in dead forests. Once needles come off lodgepole pine and lose their oils, fires in dead standing trees burn cooler and rate of fire spread declines until dense lodgepole reproduction regrows. If fire does not recur and late seral species (mountain hemlock, subalpine fir) are sheltered from temperature extremes by standing pine snags, a replacement forest will arise in the bug kill area.	Since most of the needles have fallen from the dead trees in the project area, the primary concern is for the next stage where trees begin to fall. Fuel conditions are expected to become extreme in the next decade with the combination of young seedlings that have already seeded in and hundreds of trees per acre falling in a “jack strawed” manner. Fires burning in this area would be too extreme to suppress with conventional

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		ground crews and they would become large and intense.
Corkran	21. Saving tribal resources seems a major driver of the project. Last year the Warm Springs folks had not salvaged the acres of dead wood east of Olallie Lake left after a fire two years before, so it is hard to see why Lemiti salvage logging is needed to protect something the tribes themselves do not seem to value.	The Tribes are working on fuels reduction projects. Salvage may not be appropriate on all reservation lands based on Tribal management plans.
Corkran	22. Historically fires burned throughout the high country along the Cascade crest. As early as 1927 Ranger Joe Graham pointed out that fire exclusion was decreasing the meadow area. It was the forage and browse of recently burned areas which supported game and non-game wildlife species in the region. One would think fire, even “catastrophic fire”, the best restorer of wildlife and huckleberry resources which usually are most valued by the tribes.	It is recognized that fire plays an important role in some landscapes, but there is a point where too many large, high-intensity fires create unwanted impacts. The Forest Plan as amended requires an appropriate fire suppression response in this area.
Corkran	23. Logging and slash removal could result in increasing early streamflow, earlier high stream flow, longer periods of low soil moisture and low stream flow. Earlier snow melt could lower late summer stream flow, placing more stress on riparian areas and their dependent plant and animal species. Earlier snow melt likely leads to longer periods of low soil moisture, the effect of which is to extend periods of summer high fire risk. Longer periods of low soil moisture might reduce tree growth, and hasten the competition between trees which make trees susceptible to insect infestations. Removing down logs will reduce the biological capital already low of the area. Lowered biological capital will alter the nutrient release patterns of fire when fire occurs, with unknown effects upon subsequent stand development. The effects of fuel reduction on soil moisture probably should be investigated before salvage logging is proposed.	The snow melt situation would likely be similar for the no action alternative because the trees are dead. This situation is temporary because growing seedlings will gradually replace the dead trees. The assessment will address soil moisture issues.
Corkran	24. We suggest that the recently released Elk Habitat Selection Models developed by PNW researchers Mary Rowland and Mike Wilson be applied to the Lemiti area to see if management might enhance elk summer range . There has been historic elk use of the area, dating back to the era when the region was a fire maintained landscape. Size and intensity of future stand replacement fires may be minimized by maintaining a series of elk summer range meadows that would serve as fire breaks. These could be interspersed with huckleberry patches among tree stands. All three might be rotated across the landscape over time.	The team biologist will consider this model and others to assess the implications for elk.
Corkran	25. Current management of the Lemiti area might aim to preserve as much of the species richness of the area as possible so that changes in climate, fire regime, etc. allow for continuation of robust, sustainable natural processes if human interventions cease. Past stand replacing fire and bug kill have given us the resources we have now. We should at least preserve the possibility they may do so again in the future.	Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment. The typical cycle of lodgepole pine succumbing to mountain pine beetle and then burning in stand replacing fires has likely occurred in this area for thousands of years. However, the Forest Plan as amended, identifies goals and desired future conditions and allowing wildfires to burn is not the goal for this area at this time. The forest is managed for a wide range of human and resource values and, in the event of a wildfire, suppression forces would be at greater risk protecting these values if no action is taken to moderate the fuels hazard.
AFRC	26. AFRC supports this approach and also supports this type of project. It is critical that we get ahead of the insects and diseases that have moved beyond endemic levels and stand levels to landscape levels and restore our national forests	The mountain pine beetle outbreak has run its course.

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	to more vigorous and healthy conditions. And it is critical to treat areas such as the Lemiti Butte area to mitigate the potential for uncharacteristic wildfire events. A significant amount of green standing forest will probably require treatment in order to be effective in eventually reducing the pine beetle outbreak.	
AFRC	27. Do the stands of dead lodgepole extend on to the Warm Springs Reservation? If so, is the Tribe planning to treat their lands too? Obviously the wind blows both ways and it would be inappropriate for large fire to move off the reservation and on to the forest as well.	The Forest has discussed this project with representatives from the Confederated Tribes of Warm Springs, and the CTWS are actively engaged on projects on the reservation lands. The Forest has no authority to influence land management decisions on the CTWS lands.
AFRC	28. How do you plan to pay for this project?	The Forest is examining funding options. It will likely require a mix of funding from various sources.
AFRC	29. How much of the lodgepole is actually still merchantable as sawtimber?	Until a cruise is conducted we will not know the answer to this question. We are presuming that much of the material would be removed and utilized for products other than sawlogs.
AFRC	30. Are there opportunities in the nearby area to include green timber so the Lemiti project can be at the very least a “revenue neutral” project?	At this time, the Forest is not contemplating merging the Lemiti Fuels Reduction Project with other green timber proposals elsewhere on the Forest.
AFRC	31. Is there an opportunity for the Tribe and the Forest Service to put together a joint project which may help the economic feasibility as well as treat a larger area?	After communicating with the tribes on this issue, it does not seem likely that a combined project is feasible.
Bark	32. Wouldn't this project create the exact same conditions that created the beetle kill in the first place? That by salvage logging the area the Forest Service will create another even aged stand of exclusively LPP? The fire regime in this project area is relatively infrequent which means that most treatments are unlikely to ever be affected by fire and have a chance to modify fire behavior before the forest regrows and becomes dense LPP again. These treatments are likely unnecessary and are unlikely to ever serve their intended purpose.	Young lodgepole pine seedlings have already seeded in beneath the dead lodgepole pine trees. The dead trees no longer have viable seed and their removal will not create an exclusive lodgepole pine stand. Agency fire personnel have experience in this area with suppression of large lightning caused fires in similar fuel types and believe that it is highly likely that this area will experience extreme fire behavior soon, a risk that increases when the dead lodgepole pine begin to fall. Part of the proposed action is to manage the regrowth density to extend the duration of effective fuel treatments. Even with fuel treatments, wildfires are still likely to occur in this area. The intent is to reduce the intensity of a fire so that fire suppression forces can safely operate to keep fires small.
Bark	33. It would be in the best ecological interest to allow a diverse, shade tolerant community to arise beneath the dead trees and potentially extend the fire regime from the standard 80 year fire return interval of LPP to the 200 year fire return interval of Mountain Hemlock.	The proposed action would promote the composition of tree species other than lodgepole pine. Shade tolerant trees grow well in full sunlight; they do not require shade. Even with a mix of tree species it is very unlikely that no action would change the fire regime or fire return interval.
Bark	34. The pre-scoping letter notes that “A large scale wildfire could impact scenery, recreation opportunities, forest ecosystems, watersheds, and wildlife habitat.” But this statement fails to acknowledge that logging will have these same negative qualities , which are definite while fire is speculative at best.	Agency fire personnel have experience in this area with suppression of large lightning caused fires in similar fuel types and believe that it is highly likely that this area will experience extreme fire behavior soon, a risk that increases when the dead lodgepole pine begin to fall. Logging operations are closely planned and regulated with impacts mitigated through restrictions placed on timing, method of harvest and other measures described in the project's PDCs. A large scale wildfire would have broader impacts which would be uncontrollable under current and forecasted future conditions with no action.
Bark	35. Trees that are currently being killed by beetles are incrementally reducing the	Since most of the needles have fallen from the dead trees in the project

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	need for intervention with each passing year. Beetles help thin the forest of a singular aged and species of tree. The small fuels created by dying trees will break down over time and do not represent a serious fuel problem. In fact, these beetle killed trees have already dropped their needles and are no longer susceptible of spreading via crown fires. In a forest like this (with a relatively long fire return interval), and the large fuels associated with the dead tree boles do not contribute to high fire hazard and are a non-issue. In fact, studies have suggested that the moisture stored in large wood might serve as a heat sink and reduce fire severity.	area, the primary concern is for the next stage where trees begin to fall. Fuel conditions are expected to become extreme in the next decade with the combination of young seedlings that have already seeded in and hundreds of trees per acre falling in a “jack strawed” manner. Fires burning in this area would be too extreme to suppress with conventional ground crews and they would become large and intense.
Bark	36. We are concerned that logging will impact the wilderness characteristics that such a designation is meant to protect.	The Wilderness legislation specifically addressed this situation. Congress specified that there would be no buffers around the perimeter of Wilderness Areas, and indicated that “nonwilderness activities or uses could be seen or heard from within a wilderness area shall not, of itself, preclude the activities or uses up to the boundary of the wilderness area.”
Bark	37. The Lemiti project would construct three miles of new temporary roads and rebuild five miles of roads that are already closed. While the scoping letter does state that these roads will be obliterated after project completion, we believe that road construction would be a step backwards as it would contribute to sedimentation, compaction, and habitat disruption. The analysis is often based on the assumption that roads will be closed, when in reality these closures, and their associated ecological benefits, are wholly dependent upon timber receipts.	All of the temporary roads would be rehabilitated upon project completion. Roads are located to minimize risk of sedimentation. The roads would be rehabilitated and closed by the operator. This is not dependent upon timber receipts.
Bark	38. This proposal robs the area of the roadless character that is so lacking across the forest.	The Forest has many areas such as Wildernesses where ecological processes and unroaded character occur. The goals for the project area can be achieved with temporary roads to gain access for fuels treatments. These roads would be rehabilitated upon completion of those treatments.
Bark	39. Mature stands are very different from the rest of the proposal and should be removed from further consideration.	Mature stands of live trees that are considered suitable owl habitat would not be treated.
Bark	40. We would encourage all the stands west of 4220 be dropped from further consideration as these are outside the 100 year fire regime, contain a diverse conifer community, and are adjacent to the Sisi Wilderness. These stands are so similar to the excluded top of Lemiti Butte that it only makes sense to remove everything west of 4220 from further consideration as well.	This generalization that all stands west of 4220 are similar and should be treated the same is not supported by stand data. The proposed action would avoid mature stands of mix conifer but would treat dead lodgepole pine stands regardless of which side of 4220 they are on. See response to comment #36.
Bark	41. Another possibility to consider is the ecological benefit of a fire in the planning area. This natural cycle of beetle-kill followed by fire is something that the forest has evolved with, and conditions on the ground suggest that the area has experienced this in its previous cycle.	The natural fire regime for the project area is one where large stand replacing fires burn and kill most trees. However past fire suppression, insect mortality in lodgepole pine and the ingrowth of ladder fuels has created a situation where wildfires would burn more intensely and get larger than would have been expected a few decades ago. Large, intense wildfire is not the desired condition for this landscape at this time. The landscape is managed for many human values such as scenery, clean air, recreation, safety and huckleberries. It is also managed to provide habitats for rare species. The Mt. Hood Forest Plan as amended by the Northwest Forest Plan requires an appropriate suppression response for all wildfires in this area to protect these values. Changing the policy to allow fires to burn is outside the scope of this analysis.
Bark	42. Another aspect that needs to be explored is the impact that increasing road	Roads would be closed after project completion and therefore would not

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	<p>density has on fire susceptibility. Overall, the scientific literature suggests that forests in areas without roads are less altered from historical conditions and present a lower fire hazard than forests in intensively managed areas, for three reasons:</p> <ol style="list-style-type: none"> 1. Timber management activities often increase fuel loads and reduce a forest's resilience to fire. 2. Areas without roads have been less influenced by fire suppression than intensively managed lands. 3. Widespread road access associated with intensively managed lands raises the risk of human caused ignitions. 	<p>contribute to human caused ignitions. These generic statements are not applicable to the Lemiti area.</p>
Bark	<p>43. This proposal might reduce fuel loads, but it also allows more solar radiation and wind to reach the forest floor. The net effect is often reduced fuel moisture and increased flammability.</p>	<p>This project is not a traditional logging. Tree tops, branches and fuels on the ground would be treated. Fuel modeling and previous experience shows that flame lengths would be approximately four feet after treatment. The no action alternative would also be dry with jackstrawed fallen trees.</p>
Bark	<p>44. Salvage logging has already occurred on Forest Roads 4220 and 4690. These cleared areas could provide the firebreak that could allow firefighters the opportunity to work if a fire takes place and would allow folks to leave the Olallie lakes area.</p>	<p>This work involved the removal of hazard trees. While this has helped a little, it does not provide a sufficient fuel break to provide for the safety of suppression forces, nor would it reduce flame lengths sufficient to allow egress from Olallie Lake.</p>
Bark	<p>45. Considering Mt Hood as a whole is a snag deficient landscape, it seems apparent that a snag-habitat forest is desperately needed to fulfill this ecological void.</p>	<p>The Forest is not deficient in snags at the broader landscape scale. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment.</p>
Bark	<p>46. There is perhaps no vertebrate more strongly representative of the snag forest habitat type than the Black-backed Woodpecker.</p>	<p>Sufficient quantities of snags will be retained in the project area and across the landscape to provide for snag dependent species. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment.</p>
Bark	<p>47. It is mentioned in the scoping notice that jackstrawed trees increase fire risk, but it does not mention that jackstrawed trees provide a matrix of habitat for fisher, martin, lynx, and cougar that use these downed trees for such uses as thermal cover, hiding cover and hunting areas. Other critters like many small rodents use these downed logs for cover as well. Smaller downed logs benefit amphibians which would be of great use in this hot microclimate. Red-backed voles utilize the fungi and lichens associated with downed wood.</p>	<p>Jackstrawed trees are becoming very common. Sufficient quantities of jackstrawed down wood will be retained in the project area and across the landscape to provide for dependent species. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment such as riparian areas and adjacent Wilderness.</p>
Bark	<p>48. Downed logs are also extremely important for nitrogen fixation.</p>	<p>Down logs are likely to jackstraw and not rest on the ground. They are relatively dry and would likely burn before any process of decay and soil building begins.</p>
Bark	<p>49. There is strong consensus among ecologists that high-intensity fire, and resulting snag forest habitat, is something that must be preserved and facilitated, not prevented or destroyed.</p>	<p>The natural fire regime for the project area is one where large stand replacing fires burn and kill most trees. However past fire suppression, insect mortality in lodgepole pine and the ingrowth of ladder fuels has created a situation where wildfires would burn more intensely and get larger than would have been expected a few decades ago. Large, intense wildfire is not the desired condition for this landscape at this time. The landscape is managed for many human values such as scenery, clean air,</p>

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		recreation, safety and huckleberries. It is also managed to provide habitats for rare species. The Mt. Hood Forest Plan as amended by the Northwest Forest Plan requires an appropriate suppression response for all wildfires in this area to protect these values. Changing the policy to allow fires to burn is outside the scope of this analysis.
Bark	50. While we want the agency to respect tribal wishes, this project is awash with secrecy that makes it hard for the public to know what treaty rights are being respected with this proposal. We are concerned, however, that this project does not achieve the goal of reducing fire in Warm Springs, nor does it recognize the role of fire in this landscape. As outlined in the Scoping Notice fire is still a reality on the reservation despite an aggressive fuels treatment program being implemented there.	The project area is part of the tribes' usual and accustomed lands where they traditionally hunted, fished and harvested huckleberries, roots and other medicinal plants. There are also culturally and spiritually significant areas that occur on the national forest. Treaties recognize tribal rights to continue with these activities on national forest land. This project is designed in cooperation with the tribes to protect the resources in this area. It was developed because large scale wildfires are likely to occur in this area, and when they do occur, Forest and tribal resources would be damaged. The project is in the "back yard" of tribal members who live and work there. The Forest communicates and collaborates with the Tribes on a government-to-government basis. Fires do occur in areas with fuels treatments, however, they would burn with less intensity and be easier to contain at a smaller size compared to no treatment. Elimination of fire from the planning area or the landscape is not a goal of this project.
Bark	51. There is a great need to determine how we can get control invasive plants in the post-logging environment.	Project Design Criteria would minimize the spread of invasive plants.
Bark	52. The FS also needs to address the role of climate change in regards to this project, including an examination of how climate change could effect and be effected by the different scenarios of logging versus allowing the forest to progress naturally, either to the next seral stage or to burn. In either of the latter scenarios, carbon bound up in dead trees would gradually return and be stored in the soil - either through the decay of down logs or the release of carbon into the soil through fire. Logging, however, is guaranteed to release this stored carbon.	Hot intense stand replacement fires have burned in the project area in the past and are likely to burn again. If climate change results in drier summers with earlier spring snow melt, wildfires would likely become more frequent, more intense and larger. This type of wildfire would convert vast quantities of woody biomass into gaseous carbon dioxide and would kill most trees and plants. While it is not possible to predict the exact size a fire might attain with or without fuel treatment, it is likely that with treatment, fires would be kept smaller and less gaseous carbon would be released into the atmosphere. With treatment, the trees there would likely survive because flame lengths would be four feet or less and without treatment trees would be killed and partially consumed by a fire with flame lengths up to 100 feet.
Bark	53. The second Purpose and Need for Lemiti mentions the need "to provide sustainable forest products now and in the future". We are skeptical that the project will meet this Purpose and Need. This area is in a frost pocket, where the cold sits and lingers, making the establishment of stands difficult. The trees are debarked and show many signs of decay and woodpecker activity, making it seem unlikely that the project will generate enough funds to close roads post-logging.	The Forest is concerned about economic viability and will examine all aspects of the project to make sure they are needed and designed as efficiently as possible. Traditionally, the value of timber removed is relied upon to cover the costs of its removal and other project elements. Given that this project is a fuels treatment action, the value of the salvaged trees may only cover part of the treatment. The project area is considered suitable for timber management and even though growth rates are slower than in lower elevations, it is likely that trees can be successfully grown there to meet resource needs described for the various land allocations and to provide future timber. The area has already regenerated to tree species adapted to this site. The decommissioning of roads would be a contract

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		requirement.
Bark	54. We would like to see the elimination of the areas to the west of 4220 and no new roads, even temporary ones.	This would eliminate 87% of the project and would result in a project that would not achieve the purpose and need. These few acres would not effectively minimize fire hazard, nor would they provide for enhanced firefighter or public safety.
Krochta	55. The removal of this otherwise unmarketable wood is possible through salvage logging means that this type of forest management will put the project area at a deficit when it comes to habitat and essential provisions for regrowth. Salvage logging often removes legacy features that help maintain the genetic/species diversity in the areas logged, as well as its structural and functional health.	See response to #19 & 53.
Krochta	56. I heard accounts of a diversity of moist conifer regeneration in stands affected by beetle kills in the area, and vigorous stands of lodgepole pines in the drier areas surrounding roads already accessing the site. Salvage logging of dead pines in the area will create a drier climate similar to this with less large wood holding moisture, remedying the risk of future fires.	The only moist areas are in wetlands where fuels treatments would not occur. Down lodgepole pine logs, particularly those that are jackstrawed and do not rest on the ground are relatively dry. Removing dead trees and fuels would not significantly affect the local climate.
Krochta	57. Dead trees are required by many cavity nesting animals, and large woody debris which is often removed by salvage logging is essential to almost all animals in the forest. Removal of legacy features from these forests is the same as removing these species' homes and prevents their populations from becoming as stable as they were before fire suppression was forest policy.	Sufficient quantities of snags will be retained in the project area and across the landscape to provide for snag dependent species. Not only have large fires burned leaving many thousands of acres of dead trees, the lodgepole pine mortality extends into many areas that are not proposed for fuels treatment.
Krochta	58. In addition, the project will require the rebuilding of roads through the forest to the project area, which has experienced very little human-caused disturbance in recent years. This increase in road building will have negative effects on the surrounding forest ecosystem through fragmentation, soil compaction and erosion, as well as the spread of invasive species which have been found regularly in post-logging units in Mt. Hood NF.	Roads would be located, used and rehabilitated in compliance with the Forest Plan. Project Design Criteria would minimize erosion and the spread of invasive plants.
Krochta	59. A common misconception is that salvage logging decreases future fire risk in dead stands, but the truth is that this type of logging can actually increase fire risk by increasing surface fuel loads which contain fine woody debris left from salvage logging operations. Funding often does not allow the removal of this type of material after salvage logging has taken place in areas that are actually at risk, creating a prescription for future fire. It was shown that salvage logging in the area of the 2002 Biscuit Fire resulted in less conifer regeneration compared to un-salvaged stands. In addition, more potential for fire behavior was created by the increased surface fuel loads left by salvage logging.	This project is not traditional logging. Tree tops, branches and other fuels would be treated to remove the hazard. Fuel modeling and previous experience shows that flame lengths would be approximately four feet after treatment.
Krochta	60. Just like in any other forest, I disagree with the misconception that beetle kills are a dangerous, unnatural event which require intervention from the Forest Service. Mountain pine beetles are native to the Pacific Northwest, and the area in question has a fire interval which does not require this destructive type of fire suppression. There are alternative methods to controlling beetle outbreaks such as pheromone traps which do not rely on driving heavy machinery all over the forest, removing species homes and putting the area at a nutrient and species diversity deficit. Beetle kills are a natural occurrence which helps thin tree stands and keep nutrients within the forest ecosystem.	The natural fire regime for the project area is one where large stand replacing fires burn and kill most trees. However past fire suppression, insect mortality in lodgepole pine and the ingrowth of ladder fuels has created a situation where wildfires would burn more intensely and get larger than would have been expected a few decades ago. Large, intense wildfire is not the desired condition for this landscape at this time. The landscape is managed for many human values such as scenery, clean air, recreation, safety and huckleberries. It is also managed to provide habitats for rare species. The Mt. Hood Forest Plan as amended by the Northwest

	Comment	Response
		Forest Plan requires an appropriate suppression response for all wildfires in this area to protect these values. The mountain pine beetle outbreak has run its course. While pheromone traps may be useful for research or monitoring populations, they are not a viable tool to control outbreaks.
Presley	61. I was dismayed to hear of a salvage logging project in the Lemiti Butte area. A friend and I spent 3-4 days last summer in said project area locating 2 versions of the old Skyline Trail that go through the area as well as other trails. Is there or will there be some provisions to protect the old trails in the area, or will they be ground up in the logging process. It would be a shame to once again lose part of the hiking trail history by logging and road building that have wiped out so many of this district's trails.	Heritage resources have been surveyed, evaluated and protected where necessary.
Bark	The following was electronically sent via Bark's web site.	
	62. The area contains very few roads with just one main road bisecting the area, yet logging would necessitate extensive road construction, totaling eight miles. Road construction would have an enormous impact on ecosystem health, fragment wildlife habitat, and contribute to erosion in streams and riparian areas such as the numerous wet meadows in the project area. Areas with little or no roads provide essential refuge in a forest largely scarred with thousands of miles of roads. I am concerned with any proposal to increase the road network in Mt. Hood National Forest, and the fact that much of the Lemiti area is roadless and borders on wilderness greatly amplifies my concerns. Please do not construct new roads to facilitate logging in the Lemiti Butte project area. I understand that the primary purpose and need of this project is to reduce the risk of wildfire. However, the vast majority of the forest in question is an ecosystem that relies heavily upon fire for its renewal. Although there are legitimate concerns with the possibility of a high intensity fire in this area, logging to suppress it is not the solution and will ultimately not prevent the inevitable. Please consult the best and latest available fire science in your continued planning of Lemiti Butte.	These comments duplicate the comments already discussed above. See responses to comments #9, 25, 36 & 37.
Bark	63. Several hand written cards were received from BARK from folks that attended their field trip to Lemiti.	While each card is different, they essentially duplicate the issues already discussed in comments #7, 25 & 33.