

**DECISION NOTICE
FINDING OF NO SIGNIFICANT IMPACT**

Sandbox Vegetation Management Project Environmental Analysis

USDA Forest Service
Wallowa-Whitman National Forest
La Grande Ranger District
Union County, Oregon

An Environmental Assessment (EA) that discusses the proposed Sandbox Vegetation Management Project within the 16,134 acre planning area on the La Grande Ranger District of the Wallowa-Whitman National Forest is available for review at the La Grande Ranger District Office in La Grande, Oregon.

The Decision

Based on the analysis described in the EA and associated project record, it is my decision to implement Alternative 2, as adjusted below, as the method of treatment and management of these National Forest lands. This decision addresses the purpose and need to be proactive in providing for long-term forest resiliency and reduce the likelihood and severity of future insect infestation and/or wildfires, and the loss of trees to dwarf mistletoe. Alternative 2 is designed to enhance stand condition and vigor, create areas of strategic fuels reduction, modify fire behavior in the area, enhance Old Forest (OF) stand structures, and provide wood products to benefit local economies. In addition to the vegetative management and enhancement projects described under the Common Elements section and the alternative description below, access and travel management in terms of re-closing existing closed roads at the completion of the project and obliterating temporary roads to maintain/enhance wildlife, fisheries, recreation, and hydrology resources would occur.

Alternative 2 responds to the following key issues: 1) Improvement of long-term forest health conditions; 2) Deficiency in Old Forest Single Story structure (OFSS) and departure from Historic Range of Variability; 3) Modification of potential fire behavior; and 4) Economics.

Preferred Alternative Description:

The following adjustments to the preferred alternative are also a part of my decision:

Units 26, 27, and 28 will be deferred from harvest treatments and temporary road building (0.17 miles of T-7 and 0.6 miles of T-8) with this project.

Due to a mapping error, approximately 2-5 acres along the eastern boundary of unit 61 will be adjusted to remove it from the unroaded portion as depicted on Map 6 of the Potential Wilderness Inventory.

The effects of these changes were analyzed under alternative 3 in the environmental assessment and discussed as part of the objection resolution process.

The following is a description of the types of treatments that will occur within the Sandbox Vegetation Management project area (refer to maps in Appendix A).

Vegetation and Fuels Management:

Fuels Reduction:

Mechanical fuels prescriptions and prescribed fire prescriptions will be implemented as described below.

Table 1 – Fuel Treatment Prescriptions and Acres for Alternative 2

Fuel Treatment Prescriptions	Acres
Fire/Fuels Reduction/no removal (FFU) – ladder and ground fuels reduction treatments. No off site biomass removal would occur. Ladder fuels (< 9" DBH) would be reduced using precommercial thinning/pruning by hand or mastication by machine. Surface fuel loads will be reduced to appropriate levels by such means as hand pile/burn, grapple pile/burn, or mastication by machine.	431
Harvest Fuels Reduction/commercial removal (HFU) – ladder and ground fuels reduction treatment using commercial biomass removal to accomplish fuel reduction objectives. Canopy bulk densities will also be reduced using a commercial thinning from below prescription with additional post-harvest slashbusting, whip falling, or precommercial thinning to achieve fuels reduction objectives.	5
Prescribed Burning (RXB) – Over the next 10-15 years, prescribed burning in 8 burn blocks would occur when weather and fuel conditions are appropriate to meet the objectives for each unit. No more than 10% of the available forage within the project area will be burned per year. Existing plantations and thinning areas will be avoided during burn layout and implementation. Control lines would include roads, natural barriers and brush removal rather than bare mineral soil line construction where possible.	7,465

Prescribed Burn Units (RXB) - Not every acre within the burn blocks is expected to burn because of variable existing fuel loadings, topography, stand conditions, past management (thinning and planting), riparian areas, etc. The following table displays the total acres for each burn block and the estimated acres of direct ignition within those burn block boundaries.

Table 2 - Prescribed Burn Block Acres and Estimated Burned Acres

Prescribed Burn Block #	Acres	Estimated Burn Acres
601	731	615
602	2,149	375
603	1,340	600
604	2,507	1,500
605	2,273	1,700
606	1,953	1,000
607	2,168	1,000
608	2,694	675
Totals	15,815	7,465

Timber Harvest – Commercial harvest treatments will occur on approximately 2,180 acres of the Sandbox Project area, including 1,080 acres of commercial thinning (HTH), 680 acres of improvement cuts (HIM), 165 acres of shelterwoods (HSH), 5 acres of commercial fuels reduction (HFU), 55 acres of overstory removal (HOR), 19 acres of patch openings (HPO), and 116 acres of sanitation harvest (HSA). These treatments will provide one or a combination of the following: reduced stocking densities, removal of diseased and poor growing trees, and promotion of stands with multi and single story large tree characteristics. Shelterwoods on 165 acres will remove poor growing, less vigorous trees while maintaining most of the larger component (trees larger than 18 inches dbh). The larger overstory component will remain and planting would ensure a healthy, viable understory of seral species. These stands are currently not LOS; however, treatment will accelerate them toward becoming old forest multi stratum (OFMS) structure stands. Their current condition precludes the use of intermediate treatment prescriptions. Shelterwood treatments will occur on <1% of the project area.

Precommercial Thinning - Approximately 128 acres outside of the harvest units will be precommercially thinned to improve tree growth and select desirable tree species.

Old Forest – OFMS forest conditions are over represented in this area due primarily to past suppression of wildfire in stands historically maintained in more open large tree dominated conditions by frequent, lower intensity fires. Of the 1,538 acres of old forest treated in this alternative, approximately 1,321 acres of OFMS will be treated to meet the following objectives: 1.) promote old forest single story (OFSS) structures which are deficit and well below HRV within the project area, 2.) promote seral species, 3.) reduce fuel loadings with non-commercial treatments, and 4.) emulate historic disturbance patterns. There will be no net loss of Old Forest (OF), but a redistribution of OFMS to OFSS old forest conditions in any of the potential vegetation groups (PVGs).

Treatments will:

- return 701 acres of dry PVG OFMS to OFSS,
- treat 318 acres of moist OFMS to enhance resiliency and maintain OFMS structure,
- non-commercially treat 271 acres of moist OFMS to reduce fuel loadings and maintain OFMS,
- and enhance stand health and vigor on 217 acres of stands with dry OFSS stands maintaining OFSS structure.

These treatments will result in no net loss of old forest structure.

Riparian Habitat Conservation Areas (RHCAs) – Specific commercial and non-commercial harvest units would treat portions of the RHCA within their unit boundaries to accelerate recovery of riparian vegetation conditions, enhance forage and reduce risk to fire. In precommercial thinning units and non-commercial harvest units fuels reduction work would be completed by hand only (no mechanical treatment allowed). FFU units would receive ladder and ground fuels reduction treatments including precommercial thinning of live trees less than nine inches dbh to a spacing of 14 to 16 feet and pruning branches on trees up to six feet above ground. Slash will be piled by hand and burned outside of the RHCA. Piles would be placed to avoid damaging or killing overstory trees during burning operations. With the exception of the units listed below no mechanical treatments will be permitted within the RHCA. Minimum no-activity buffers for FFU and PCT treatments will be 10 feet wide along both sides of (class IV) intermittent non-fish bearing stream channels and wetlands less than one acre; 30 feet wide along both sides of (class III) perennial non-fish bearing stream channels and wetlands greater than one acre; and 50 feet on both sides of (class I) perennial fish bearing streams.

Mechanical commercial harvest treatments will occur within 7.5 acres of RHCA in the following units:

Affected Units: 5, 72

Hand treatment within RHCAs will occur on 40 acres in the following units:

Affected Units: 107, 108, 109, 110, 112, 114, 120, 121, 122, and 124

Other Features of Alternative 2

Connectivity Units – The goal within these units will be to maintain and enhance cover and connectivity qualities such as medium to large trees as a common occurrence, canopy closure within the top 1/3 of site potential, and no less than 400 feet at the narrowest point. Stocking levels will be managed to the upper management zones for basal area except where tree quality and crown conditions are such that the upper management zone is unattainable, in those areas, 20% of the stand will be in untreated clumps. Retain trees with down to 20% live crown if needed to maintain basal area levels.

Affected Units: 16, 25, and 105

Raptor Nest Site – The known historically active peregrine aerie located within the project area will have a seasonal haul restriction coordinated with the District Biologist if found active during project activities.

Treatment within Buck Creek Campground and Trailhead (Unit 116) - Treatments would primarily be lodgepole thinning within the campground including removal of hazard/safety trees. Stumps will be flush cut within the campground. Thinned tree boles would be bucked into firewood lengths and stacked within

the campground with the remainder of the slash (branches and needles) hand piled outside of the campground and burned.

Fuelwood Removal Area – Roads 7700770, 7700772, 7700860, 7700900, 7700890, and 7700912 are currently open and access areas with high down fuel loadings. Public firewood removal will be emphasized in these areas to assist in meeting fuel reduction goals. In addition, fuel reduction treatments along these roads will retain thinned trees within 300 feet of the roads to make them available to firewood cutters. Public firewood gathering would occur from May 1 – November 30.

Roadside Hazard Trees - Danger trees would be cut along all haul routes. If the trees are within RHCA's, as described previously, or needed to meet down wood requirements, they would be cut and left on site. If they are outside of those areas or not required to be retained for other resource needs and are of commercial value, they may be removed with this timber sale.

Snags and Downed Logs –

Downed logs will be retained at the following levels:

200 lineal feet per acre

Minimum lengths of logs 20 feet or largest available

Minimum of 12" small end diameter logs or largest available

Snags – With the exception of an occasional snag removed for safety or construction clearing, no snags \geq 12 inches dbh would be removed with this project.

Harvest System and Road Activity Summary:

Removal Systems Summary – Proposed harvest treatments will result in removal of approximately 6.4 million board feet of commercial material using the following yarding systems.

- Cable based yarding systems 487 acres
- Ground based yarding systems 1,633 acres

No new permanent road construction will occur with this project. Approximately 4.43 miles of temporary road construction will facilitate harvest systems. Of these temporary roads, 2.2 miles are on existing wheel tracks requiring little to no site disturbance for log haul use and 2.23 miles would require minor construction. Temporary roads will be treated after use by implementing some or all of the following activities: installation of erosion control devices, ripping to reduce soil compaction, seeding, and camouflaging roads to discourage further use. A culvert will also be replaced in road 7787705 which is currently plugged and washing out the road.

Approximately 21.9 miles of currently closed roads will be reopened to facilitate harvest/fuel reduction activities. Any road currently closed by gate or barricade used for harvest activities would be re-closed in the same manner at the conclusion of harvest activities within the units they access.

Rehabilitation Work:

Road Decommissioning - The following roads have been identified in the draft Forest Minimum Roads Analysis and confirmed by the District interdisciplinary team as creating resource damage and no longer needed for future management of the National Forest System lands within the Sandbox project area. These roads would be decommissioned either at the completion of this project or when funds come available.

Road 7700742 - Approximate length of the road segment is 0.6 miles. The road begins at the breaks of the South Fork of Catherine Creek, crosses one Class IV stream (intermittent non-fishbearing), and inclines down to the South Fork of Catherine Creek joining with the 7700702 road that has been previously decommissioned. The road has not been used in several years and is grown in. The culvert in the Class IV stream has been removed at some point in the past.

Road 7700908 - Approximate length of the road segment is 1.2 miles. This road is a draw bottom road for approximately 0.6 miles. The road is very overgrown and has not been used in several years.

Mitigations and Monitoring:

Mitigation measures incorporated as part of this decision include specific treatment design features as well as a variety of specific resource measures described in Chapter 2 of the EA on pages 38-52. Wallowa-Whitman National Forest Plan Standards and Guidelines that apply to Management Areas 1, 3, and 15 were also incorporated into project design.

Monitoring of project activities incorporated into this decision is discussed on pages 45 through 47 of the EA.

Alternatives

A range of alternatives to the Proposed Action was considered in this analysis based on public scoping and feedback. Several alternatives were considered but eliminated from detailed study (EA, pages 24 - 25) primarily because they did not meet the purpose and need.

The alternatives described below were considered in detail based on the purpose and need of the project and the key issues and public feedback on the Proposed Action as described in Chapter 1 of this assessment. Forest Service management objectives are incorporated into alternatives by following standards and guidelines of the Wallowa-Whitman National Forest Plan as amended.

Alternative 1 - No Action

This alternative constitutes the "No Action" alternative. Timber harvest and other management activities identified in the Sandbox analysis area will be deferred. This alternative forms a baseline for comparison of the action alternatives.

Alternative 2 – [Refer to map and data tables in Appendix A of the EA]

This is the preferred alternative as described in the EA and under The Decision above.

Alternative 3 - [Refer to map and data tables in Appendix B]

Alternative 3 was designed to address the purpose and need while responding to issues associated with temporary road construction, use of regeneration prescriptions, and limiting disturbance in areas identified as potential wilderness areas.

Under this alternative 728 acres of commercial harvest is deferred from treatment consideration in this alternative, primarily to eliminate the need to construct temporary roads, avoid impacts to potential wilderness areas, and avoid the use of regeneration harvest prescriptions. Where possible unit boundaries and/or logging systems were modified; however, if no other options were available the unit was entirely deferred. Reference appendix B for a complete list of treatment unit prescriptions and maps of the modified proposed action units.

Vegetation and Fuels Management:

Fuels Reduction:

Fire/Fuels Units (FFU) – Approximately 431 acres of fire/fuels units would be included in this alternative. These non-harvest units would receive a mechanical fuels reduction treatment designed to increase the effectiveness of the proposed prescribed burning.

Prescribed Burn Units – 7,465 acres of prescribed burning would occur as described in the Common Elements section of this chapter. Direct ignition within old forest stands would be limited due to lack of pretreatment. Burning would occur in a diverse mosaic due to fuels, topography, weather, and site conditions.

Timber Harvest - Commercial harvest treatments would occur on approximately 1,465 acres of the Sandbox Project area, including 774 acres of commercial thinning (HTH), 520 acres of improvement cuts (HIM), 5 acres of commercial fuels reduction (HFU), 47 acres of overstory removal (HOR), 14 acres of patch openings (HPO), and 105 acres of sanitation harvest (HSA). These treatments would reduce stocking densities, remove diseased and poor growing trees, and promote stands with multi and single story large tree characteristics.

Precommercial Thin (PCT) - Approximately 128 acres outside of harvest units would be precommercially thinned to improve tree growth and select desirable tree species.

Old Forest – Of the 1,215 acres of old forest treated in this alternative, approximately 998 acres in OFMS would be for treated to meet the following objectives: 1.) manage for old forest single strata (OFSS) which is deficit and well below HRV within the project area, 2.) promote seral species, 3.) reduce fuel loadings with non-commercial treatments, and 4.) emulate historic disturbance patterns.

Treatments would:

- return 522 acres of dry PVG OFMS to OFSS,
- treat 205 acres of moist OFMS to enhance OFMS structure,
- non-commercially treat 271 acres of moist OFMS to reduce fuel loadings and maintain OFMS,
- and enhance stand health and vigor on 217 acres of stands with dry OFSS stands maintaining OFSS structure.

Riparian Habitat Conservation Areas (RHCA) – With the exception of 4.5 acres of commercial harvest treatment and 40 acres of hand treatments (i.e. use of chainsaws), PACFISH RHCA widths would be used as no activity stream buffers and incorporated into all mechanical treatment units. Minimum no-activity buffers for the one unit proposed for commercial treatment and the units proposed for hand treatments would be the same as described under Alternative 2. Listed below are units where hand treatment within RHCA would occur.

Mechanical commercial harvest treatments would occur on 4.5 acres in the following unit:
Affected Units: 72

Hand treatment within RHCA would occur on 40 acres in the following units:
Affected Units: 107, 108, 109, 110, 112, 114, 120, 121, 122, and 124

Vegetation management treatments within connective corridors, down wood and snag retention, and roadside hazard trees would also occur as described in Alternative 2.

Harvest System and Road Activity Summary:

Removal Systems Summary – Proposed harvest treatments will result in removal of approximately 4.35 million board feet of commercial material using the following yarding systems.

- Cable based yarding systems 231 acres
- Ground based yarding systems 1,234 acres

No construction of new specified roads or temporary roads would be accomplished under this alternative. Where needs for temporary roads were identified under Alternative 2, the units would either be harvested with a forwarder, or the unit was deferred from harvest. Any road currently closed by gate or barricade used to facilitate harvest/fuel reduction activities would be re-closed in the same manner at the conclusion of harvest activities within the units they access.

Alternative Overview:

Table 3 – Alternatives at a Glance

Alternative Elements		Alt 1	Alt 2	Alt 3
Project Area Boundary (PAB) Acres		0	16,134	16,134
Harvest Treatment Acres (total)		0	2,120	1,465
Total Acres Treated by Prescription Type (Commercial) (*HPO treatments part of HIM units except Unit 68)	HFU	0	5	5
	HIM*	0	680	520
	HOR	0	55	47
	HPO*	0	19	14
	HSA	0	116	105
	HSH	0	165	0
	HTH	0	1,080	774
Noncommercial Treatments				
Total Acres Treated by Prescription Type (Noncommercial)	FFU (No commercial removal)	0	431	431
	Precommercial Thinning (PCT)	0	128	128
Post-Treatment Activities				
Post-Treatment Activities	Precommercial Thinning	0	2,087	1,647
	Grapple Pile/Slashbuster	0	1,366	1,001
	Handpile & Burn	0	363	280
	Planting	0	203	55
	Whipfelling	0	296	175
	Burning for Site Preparation	0	203	55
	Burning for Slash Reduction	0	1,045	788
Prescribed Fire	Total Burn Block Area	0	15,938	15,938
	Approximate Actual Burn Area	0	7,465	7,465
Treatments within the RHCA	Precommercial Treatments (acres)	0	10	10
	Fuel Reduction Treatments (acres)	0	40	40
	Commercial Harvest Treatments (acres)	0	7.5	4.5
Yarding Systems	Ground Based Tractor and/or Forwarder	0	1,633	1,234
	Skyline Yarding	0	487	231
Road Work	Temporary Roads (miles)	0	4.43	0
	Closed Roads for Admin. Use (miles)	0	21.9	12.4
Enhancement/Safety Work	Danger Tree Removal	No	Yes	Yes
	Road Decommissioning (mi.)	0	1.8	1.8
Fuelwood Removal Areas	Selected Roads	No	Yes	Yes
Harvest Volume in million board feet (MMBF)	Sawtimber Volume	0	4.84	3.23
	Cull Volume	0	1.56	1.12
	Total Volume (MMBF)	0	6.4	4.35

Scoping Process

The Sandbox Vegetation Management project was published in the Wallowa-Whitman Schedule of Proposed Actions (SOPA), a quarterly publication, in October 2010 and has appeared in each quarterly SOPA since then. The SOPA is available on the forest website at: <http://www.fs.fed.us/sopa/forest-level.php?110616>.

A detailed description of the proposed action was mailed on March 26, 2012 to approximately 95 forest users and concerned publics soliciting comments and concerns related to this project. Six letters of response were received from interested parties. The Issues identified in Chapter One of the EA reflect concerns raised in these letters.

Members of the Union County Community Forest Restoration Board received a copy of the Proposed Action.

Scoping and consultation for the project was initiated and is ongoing with the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and ODF&W.

This project has been reviewed and approved by the State Historical Preservation Officer (SHPO).

Consultation was also completed with National Marine Fisheries Service, and US Fish and Wildlife Service.

A public field trip was sponsored to the project area by the District on August 6, 2013 to discuss existing conditions within the project area, proposed treatment recommendations, and public issues and concerns. Representatives from local government, industry, and environmental organizations participated in the trip.

An analysis file for this project is available for public review at the La Grande Ranger District. The analysis file includes specialist's reports, data specific to the project, public notifications and their responses, meeting notes, and miscellaneous documentation.

Comparison of how the alternatives respond to the key issues

Table 4 – Alternative Comparisons

Comparison Factors		Alternatives		
Key Issue	Key Indicator(s)	1	2	3
Improvement of Long-term Forest Health Conditions	Acres of overstocked acres treated.	0	2,679	2,024
	Percent of overstocked acres treated	0	34%	25%
OFSS is below the historical range of variability	Acres of OFMS restored to OFSS	0	701	522
Area is outside of historic fire return intervals	Treatment acres of conditions class 2 or 3 treated within fire regimes 1, 2 and 3.	0	2,624	1,896
Fire Behavior	Crown Fire Potential			
	Torching Index (mph wind speed)	0	195	195
	Crowning Index (mph wind speed)	53	63	63
	Fire Type – Crown or Surface	Passive Crown	Surface	Surface
	Flame Length (feet)	17	1-2	1-2
	Rate of Spread in (chains per hour)	35	6	6
Economics	Predicted High Bid in dollars/CCF	0	-\$2.48	\$20.67

Comparison Factors		Alternatives		
Key Issue	Key Indicator(s)	1	2	3
	Present Net Value in dollars			
	• Timber Sale & Related Projects	0	-\$504,160	-\$192,329
	• Timber Sale & Non-Timber Projects	0	-\$1,845,909	-\$1,534,050
	Number of Jobs	0	21.1	17.8

Reasons for Decision

I have chosen to implement Alternative 2 because it provides a balanced response to the major issues and concerns while best achieving stated purpose and need objectives aimed at moving this landscape towards desired future conditions outlined in the amended forest plan. The key issues and specific reasons for this decision follow:

Key Issue 1: Improvement of Long-Term Forest Health Conditions

In the Sandbox analysis area, approximately 50% of the moist upland forests and 78% of the dry upland forests evaluated are overstocked displaying poor live crown ratios, excessive suppressed understory stocking levels and impacts from insects and diseases. Alternative One, no action, leaves the areas in its current condition resulting in continued overstocked conditions, decline in growth rates and perpetuation of less resilient stand structures and compositions. Overstocking increases the stands' susceptibility to insect and diseases and results in increasing ladder fuels. As a result, the potential for high intensity fire increases along with the probability of damaging crown fires. In addition, tree growth rates are reduced in overstocked stands, prolonging development of the large tree component key to providing late/old structural conditions. As overstocked stands succumb to density related mortality, fuel levels will continue to accumulate further increasing the likelihood of a high intensity fire.

Of the 16,134 acre project area approximately 14,604 acres are forested (91% of the project area). There are 515 acres in reserved lands such as allocated old growth, inventoried roadless, and wilderness areas. Of the non-reserved forested acres, 5,182 acres (37% of the available forested acres) have received a commercial or non-commercial (precommercial thinning or whipfelling) treatment in last 25 years. Alternatives 2 and 3 would commercially and non-commercially (FFU) treat an additional 2,551 and 1,896 (30% and 21% of remaining acres) within the project area.

Table 5 - Acres treated (Commercial & Non-commercial) by Alternative by Potential Vegetation Group

PVG	Alternatives		
	One	Two	Three
Cold Upland Forest	0	56 acres	56 acres
Moist Upland Forest	0	1,600 acres	1,177 acres
Dry Upland Forest	0	994 acres	762 acres
Non-Forest w/in Units		29 acres	29 acres
Total	0	2,679 acres	2,024 acres

Alternatives 2 and 3 address the purpose and need for improved forest health by proactively providing for long-term forest resiliency through density reduction, reducing elevated levels of dwarf mistletoe and promotion of ecologically appropriate species compositions. With lower stand densities the likelihood and severity of future insect infestations, incidence of disease and severity of wildfire will be reduced, and opportunity for stands to increase growth rates and develop fire resilient large diameter trees enhanced.

Alternative 2 would treat 2,679 acres of the of the 4,466 acres of overstocked acres evaluated within the project area and Alternative 3 would treat 2,024 overstocked acres. The combination of vegetation and fuel treatments will create conditions that favor development of vegetative characteristics that are within the Historic Range of Variability (HRV).

The primary difference between the action alternatives (2 modified and 3) is that Alternative 2 treats more stands with density related and mistletoe problems, including those characterized as having old forest multi-stratum structures (OFMS). Manipulation of stand densities and structures in OFMS stands provide the best opportunity to promote the representation of old forest single stratum (OFSS) structures on warm/dry sites and enhance overall landscape resiliency to natural disturbances and changes in climate.

In summary, Alternative 2 treats the most acres of overstocked stands concentrating treatments on high priority stands best responding to long-term forest health and resiliency issues while meeting the purpose and need of reducing densities in overstocked stands. In achieving the desired condition of maintaining tree stocking and species composition at acceptable levels within the historic ranges, Alternative 2 modified will help to reach this condition better than Alternatives 1 or 3. (EA, pages 54-63)

Key Issue 2: Old Growth

Late/old structure (LOS) and old growth forests provide certain features and characteristics such as presence of large, old trees, forest gaps, snags, and down woody debris important for a particular set of species (plant and animal). Many wildlife communities are closely associated with or dependent on some aspect(s) of LOS and old growth habitat. There is a priority to maintain and/or restore late successional and old forest habitat to the historic range. Restoration will increase the geographic extent and connectivity of these source habitats for associated terrestrial species and over time provide for well-connected networks of source habitat.

The Sandbox analysis area is deficient in old forest single story structure (OFSS) and associated old forest habitat. In Alternative 1, the existing level of old forest habitat will contribute modestly to the old growth associated wildlife community into the long-term in the absence of large-scale disturbances. This alternative will not change the amount or distribution of source habitat for associated species in the short-term. However, it would also not reduce this habitat's risk of loss in the event of a stand replacing wildfire, which could convert this source habitat to an unsuitable condition, resulting in a potentially greater negative impact on associated species and forest stands than either action alternative. The Sandbox analysis area would continue to function as a sink habitat for late/old growth associated species. Sink habitats are habitats in which populations or species cannot survive when they are isolated from other populations or species (EA, pages 64-72).

Both action alternatives (2 and 3) will accelerate the development of late/old structure through intermediate treatments of understory reinitiation (UR) stands. Alternative 2 and 3 will treat 1,019 acres and 778 acres of UR stands respectively. Intermediate treatments influence the structure and composition enhancing overall stand growth and productivity. Density management activities in these stands would increase growth rates to site potential decreasing the period of time that would be necessary to achieve the "large tree" component of old-growth structure and reduce their susceptibility to insects and loss in a stand replacement fire. Treatments in UR stands are estimated to begin providing old forest conditions within the next 20-60 years, (depending on existing size classes) facilitating development of the area toward the HRV.

Table 6 - Comparison of Key Indicators by alternative for Old Forest.

Key Indicators	Alternative		
	1	2	3
Acres of OFMS restored to OFSS	0	701	522

A combination of intermediate treatments such as thinning, sanitation or improvement harvests and fuel

reduction treatments will also be used to restore acres of LOS currently classified as OFMS structure to the OFSS structure it historically would have been in the absence of aggressive fire suppression efforts. The following tables illustrate the old forest treatments and outcomes and the change in percentage of LOS structure classes post-harvest for each alternative and how they compare to HRV:

Table 7 – Comparison of Old Forest Treatment Acres by PVG and Alternative.

Treatments	Alternative Acres		
	1	2	3
OFSS Enhancement Treatments (Dry PVGs remaining OFSS)	0	217	217
OFMS Enhancement Commercial Treatments (Moist PVGs remaining OFMS)	0	318	205
OFMS Restored to OFSS (Dry PVGs currently OFMS restored to OFSS)	0	701	522
OFMS Non-commercial Fuels Reduction (Moist PVGs remaining OFMS)	0	271	271

Table 8 - Comparison of OFMS and OFSS forest on the landscape between alternatives and HRV

Structure/ PVG	HRV	Current	Alt 1	Alt 2	Alt 3
OFMS Moist	15-20%	30%	30%	30%	30%
OFMS Dry	5-15%	45%	45%	29%	34%
OFMS Cold	10-25%	32%	32%	32%	32%
OFSS Moist	10-20%	2%	2%	2%	2%
OFSS Dry	40-60%	5%	5%	21%	16%
OFSS Cold	5-20%	0%	0%	0%	0%

The tables above illustrate that Alternative 2 would restore 16% of the dry OFSS structure toward the desired HRV levels for dry upland potential vegetation groups (PVG) which historically supported this structural condition. Alternative 3 would restore 11% of this structure. Even with these acres of restored OFSS, the area would still be well below HRV for the OFSS structure across all PVG's. Alternative 2 restores more acres to their historic structure than Alternative 3. Both Alternative 2 and 3 maintain OFMS levels in moist and dry upland forest PVGs well above the HRV for OFMS structures supporting the species dependent on this structural condition.

Both action alternatives protect allocated old growth areas through fuels reduction work within the project area. Fuel reduction activities will support and enhance future fire suppression actions and opportunities in the event of a wildfire.

Quality of late/old structure (LOS) habitat has the potential to be reduced in the short term due to easier access into or near to LOS stands increasing potential firewood removal and disturbance to wildlife from motorized vehicles. Alternative 3 would require no temporary roads and reduces the miles of closed roads that would need to be opened by 9.5 miles over Alternative 2. This reduction in road miles in Alternative 3 reduces access into these areas and the potential for negative impacts from firewood cutting activities. Any of these short-term effects from temporary roads or opening of existing closed roads would be mitigated once temporary roads and opened existing roads are made impassable following logging.

In summary, Alternative 2 results in restoring OFSS structure to almost half of the low end of the HRV range for dry PVGs consistent with historic conditions under typical fire return intervals. These stands will not only provide for the needs of the wildlife species dependent on this type of habitat, but will also be sustainable over a longer period of time compared to Alternative 1 and stands not treated in Alternative 3. Alternative 2 promotes restoration of the critically lacking OFSS LOS structure while maintaining OFMS LOS levels above HRV. (EA, pages 64-72)

Key Issue 3: Fire Behavior

The Sandbox analysis area is currently outside the historic fire return intervals resulting in higher fuel loadings and increased risk for loss of natural resources from wildfire. Under these conditions, there is also an increased possibility of a wildfire originating on forestland and spreading to adjacent roadless areas and private inholdings.

Exclusion of fire and fuels treatments in Alternative 1 would continue to extend the fire return interval, allow for the increase of fuel loadings and change of vegetation profiles, and allow for dead wood to accumulate creating conditions that promote the movement of ground fires into the crowns of stands. Overstocked stand conditions continue to increase the susceptibility of stands to insects and disease and result in increased surface and crown fuel loadings. These conditions will place late/old structure, wildlife habitat, and riparian areas at greater risk to wildfire impacts should a fire start within the area. Alternative 2 changes potential fire behavior and creates strategic fuel reduction areas along major roads (such as 7785 and 7700 roads) as well as along strategic ridges tops above the South Fork of Catherine Creek and between Prong and Camp Creeks through treatments such as biomass removal, commercial harvest, precommercial stand cleaning/thinning, pruning, piling, pile burning, and prescribed fire. Treatments were chosen not only for stand improvement needs but also for proximity to roads, the type of species, level of fuel loadings and stand structures, and their location along likely fire paths given topography and weather patterns. Stands treated in this project are in key areas vulnerable to fire escape, dangerous to firefighters, and increased potential for loss of other resources in the event of a wildfire if they had been left untreated.

While Alternatives 2 and 3 were not designed to stop a wildfire, they were designed to slow the progression of wildfire by providing for strategic fuel reduction areas. Alternative 2 provides for the most acres of reduced fuel loadings in strategic locations followed up by fuels reduction work using prescribed fire. The treatments prescribed Alternatives 2 and 3 will create strategic areas of reduced fuel loadings from which wildfires within the project area can be more safely responded to with direct or indirect methods during suppression activities. With increased strategic fuels treatment areas there will be reduced risk of negative impacts to key natural resources and decreased risks to firefighter and public safety.

While Alternative 3 does some of this, it does not treat stands in important areas along the ridge above the South Fork of Catherine Creek and near the 7787 road along the north of the project area. Not treating in these areas leaves gaps vulnerable to fire and making indirect suppression activities (such as backfiring) difficult. Alternative 2 would provide for the most opportunities for initial attack fire suppression protecting the project area, adjacent private lands, and adjacent wilderness and roadless areas.

Alternative 2 will also provide for the most acres of fuels reduction and fire reintroduction within the project area; therefore moving more acres toward the desired fire regimes and condition classes. Effectiveness of fuels treatments are estimated to last from 20 to 30 years. Prescribed burning will achieve similar desired effects of reduced fuel loadings and lessen the extent of wildfire impacts to natural resources.

In summary, Alternative 2 treats 78% of the acres identified as having a moderate to high departure from historic fire return intervals with mechanical treatments and prescribed fire. Alternative 2 treats nearly 11% more acres at moderate to high risk of severe damage in the event of a wildfire due to heavy fuel loadings and dense ladder fuels than Alternative 3. Alternative 2 will re-introduce low intensity fire as a disturbance factor for maintaining vegetation and wildlife habitat diversity historically found in low severity fire regimes with frequent fire return intervals. Mechanical pretreatment of overstocked areas will reduce fuel loadings, allowing application of prescribed fire to further reduce existing, and project generated fuel loadings moving existing vegetative conditions and disturbance patterns towards historical conditions. (EA, pages 72-83)

Key Issue 4: Economics

Forest management activities have been shown to directly influence the economic, social, and cultural needs of communities surrounding the National Forests. One of the goals of the Wallowa-Whitman Forest plan is to provide for the production of wood products to satisfy National needs and benefit local economies by providing timber sale opportunities and employment associated with a diversity of forestry and restoration related work.

Timber sale contracts are commonly used to accomplish vegetation management objectives. This will help create jobs for the local work force and provide revenue to the county. Additional jobs for the local work force or revenue for the county will not be produced under the no action alternative (Alternative One).

The table below summarizes total jobs produced, total wages associated with the jobs produced and total economic output expected.

Table 9 - Local Community Economics - (Projected for 5 year project length within Union County)

Alternative	Total Spending	Total jobs produced	Total Wages	Total Economic Output
Alternative 2	\$1,943,138	21.1	\$827,922	\$3,072,755
Alternative 3	\$1,638,910	17.8	\$698,768	\$2,591,667

Total spending includes projected contract costs for restoration work including logging, fuels and pre-commercial thinning work. Total jobs, wages and economic outputs are based on anticipated contract spending. Based upon this analysis, Alternative 2 provides greater economic and employment benefits for the local community in Union County than Alternative 3.

In addition to the 21 jobs projected to be supported by the timber sale under Alternative Two, additional jobs and money to local communities would be generated by the precommercial thinning service contracts, fuel reduction activities and the prescribed burning activities also a part of this alternative. (EA, pages 89-94)

In summary, the income generated by this project contributes to family wage earners and local industries, which in turn support other local businesses, hospitals, and services contributing to the overall economic vitality of the County. The products produced from this project would not support the local mills alone, however, when added to the wood products being removed from other private and corporate lands, as well as other national forest timber, it contributes to the overall viability and sustainability of local mills and businesses. Each of the action alternatives reduce fuel loadings and promote forest health; however, more of this occurs under Alternative 2 than Alternative 3. The acres treated would provide seasonal work/benefits for a projected 8-10 years. (EA, pages 84-88)

Other Issues:

Further consideration of the environmental consequences for other non-key issues is disclosed in the EA on pages 88-206. In review of these consequences, Alternative 2 best meets the purpose and need while mitigating impacts to soils and site productivity, water quality and fisheries, threatened and endangered species, cultural resources, noxious weeds, other wildlife, visual resources, recreation, tribal treaty rights, and public safety. Alternative 2 integrates the purpose and need of the project, meets the legal requirements of National Forest Management Act, meets forest plan direction and protects resources within the project area. (EA, pages 53-206)

In summary, my decision to select Alternative 2 is based on thoughtful consideration of the wide-spectrum of public input and concerns, ecological conditions of the landscape, predicted environmental effects, and socio-economic needs of our local communities. Alternative 2 addresses important ecologic and socio-economic concerns in a more proactive fashion than Alternative 3 by:

- Implementing a suite of activities to restore and promote resilient stand and landscape vegetation conditions and patterns with a focus on treatment of areas with the greatest ecologic need – Alternative 2 treats 62% of overstocked acres evaluated within the project area as compared to 45% with Alternative 3.
- Establishing a network of strategic fuels reduction areas along major roads and ridges within the project area.
- Recognizing the importance of retaining a mix of treated and untreated areas across the landscape to provide for a diversity of vegetation and associated habitat conditions.
- Responding to the landscape level issue of departure from historic forest structural conditions with an emphasis on actively restoring the severely underrepresented old forest single stratum late and old structural condition while maintaining old forest multi-story conditions within the historic range of variability – Alternative 2 results in active restoration of an estimated 701 acres of OFSS conditions as compared to 522 acres with Alternative 3.
- Recognizing the need for maintaining and promoting dead wood habitat, cover and connectivity for wildlife.
- Incorporating best management practices, design features and mitigation measures to protect soil, water cultural and wildlife resources.
- Recognizing and protecting tribal treaty rights and traditional cultural practices.
- Providing a variety of socio-economic benefits through implementation of timber sales and restoration and forestry related service work that will provide raw materials to local mills and employment opportunities – Alternative 2 is estimated to result in 6.4 million board feet and nearly 21.1 jobs compared to 4.35 million board feet and approximately 17.8 jobs with Alternative 3.
- Achieving multiple use public land management objectives in a manner consistent with the amended forest plan, guiding environmental policy and environmental regulations.

Findings

The Sandbox Vegetation Management Project Assessment was developed in accordance with the Forest and Rangeland Renewable Resources Planning Act, as amended by the National Forest Management Act (NFMA) and its implementation regulations codified at Title 36, Part 219 of the Code of Federal Regulations. It also was developed in accordance with Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (Code of Federal Regulations, Title 40, Part 1508.27). These implementation regulations require specific findings to support decisions subject to the National Environmental Policy Act (NEPA). These findings include (1) Finding of No Significant Impact and (2) Finding of Consistency with Management Direction for the Forest Plan.

Finding of No Significant Impact (FONSI)

The selected alternative as modified, with the specified management requirements, constraints, and mitigation measures, provides the best combination of physical, biological, social, and economic benefits.

Based on the site-specific environmental analysis documented in the Environmental Analysis, I have found that this is not a major Federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not needed. This finding is based on the following factors (40 CFR 1508.27):

1. Impacts that may be both beneficial and adverse are discussed in Chapter 3 of the EA. These impacts are within the range of those identified in the Forest Plan. The actions will not have significant impacts on other resources identified and described in Chapter 3.

The effect of the decision is non-significant in the long and short term (EA, Chapters 2 and 3).

2. Public health and safety will be minimally affected over a short term by the proposed project. Short-term safety hazards such as log truck traffic and falling trees near roads will be mitigated through removal of hazard trees and contract safety provisions (EA, p.204). Both the short and long term fire-

fighter and public safety relative to reducing potential for high intensity fast moving crown fires will be improved (EA, pp. 72-83).

3. This project proposal does not affect any unique geographical characteristics such as parklands, prime farmlands, wild and scenic rivers, or ecologically critical areas (EA, pp. 205).
4. Based on public participation, the effects on the quality of the human environment are not likely to be highly controversial. During the scoping and meetings with the public, it was generally indicated that they were in favor of the actions proposed in this project; some even suggested that the Forest Service should consider doing more to improve forest health and reduce fuels in the project area. In general, letters received during the initial scoping of the Proposed Action indicated support of thinning and fuels treatments and opposed road building and treatments in moist old forest.

During the comment period for the EA, six letters were received: two from Conservation groups which opposed certain types of commercial logging activities, treatment of late/old structure, and road building in the area but appeared to support prescribed burning and removal of small non-merchantable materials; and 3 letters from timber industry representatives and the Union County Board of Commissioners which were in support of the purpose and need for the project but felt that a larger land base and more extensive harvest treatments should have been considered. One additional letter was received from an individual who did not support timber harvest or road construction while describing the benefits from insects and fire to forest resources. Given the low level of public response and the generally supportive nature of their participation, including field trips, this project does not appear to be of highly controversial nature. (EA, Appendix C)

5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks associated with this project. Tree felling and removal, precommercial thinning, fuels treatments (mastication, burning, piling) and temporary road construction are common practices and the effects are well known. The EA effectively addresses and analyzes issues and environmental impacts associated with the project (EA, Chapter 3).

These actions pose no disproportionately high or adverse human health or environmental effects, including social and economic effects, on minority or low-income populations. This project has shared in the federal government's overall trust responsibility to Indian tribes where treaty or other legally defined rights apply to National Forest System lands. Consultation has incorporated opportunities for tribal comments and contributions to the proposed action. Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Nez Perce Tribe were provided copies of the proposed action and heritage reports. The CTUIR Board also received several general briefings on this project during formal consultation meetings in 2011, 2012, and 2013. Discussions with tribal archaeologists and members have been incorporated into project design. No other comments were received. (EA, pp. 16, 23, 172-174, 203, 204)

6. These actions do not set a precedent for other projects that may be implemented to meet the goals and objectives of the Wallowa-Whitman National Forest Land and Resource Management Plan. The Forest Plan, as amended has set a goal of managing vegetation in a manner consistent with resource objectives. This project does not change or amend the forest plan. (EA, Chapter 3)
7. There are no known significant adverse, cumulative, or secondary effects between this project and other projects (completed, active, or planned) adjacent to the affected area. Effects to the basic resource values of soil, water, vegetation, air, or fish and wildlife were estimated and determined to be localized and limited (EA, chapter 3). This determination is based on the results of cumulative effects analyses discussed in the EA that considered past, existing, and proposed activities.
8. Based on a cultural resource inventory and report, mitigation and protection measures, the known cultural, scientific, or historical resources within the project area have been protected during project design (EA, pp. 19, 47, 172-174). Field studies have been completed for cultural and historic resources (Heritage Report, analysis file). The timber sale contract will contain a contract clause

requiring protection of any newly detected sites. Consultation with potentially affected tribes and SHPO has been completed.

9. A biological evaluation for wildlife proposed, endangered, threatened, and sensitive (PETS) species indicates that this project received a "no impact" determination for the "sensitive" northern bald eagle, Lewis' woodpecker, gray wolf, and spotted bat. Sensitive species Johnson's hairstreak, intermountain sulphur, western bumblebee, and silver-bordered fritillary received a may impact but not likely to trend toward federal listing determination. Canada Lynx received a "no effect" determination while there would be a "beneficial impact" to white-headed woodpeckers. (Wildlife Biological Evaluation, Analysis File)

The biological evaluation for fish species indicates that this project may affect but is not likely to adversely affect summer steelhead, spring Chinook salmon and their designated critical habitat. NMFS concurred with this finding in their Letter of Concurrence (LOC), dated June 26, 2013 and US Fish and Wildlife Services' LOC dated July 12, 2013 (Analysis File). No terms and conditions were provided.

Implementation of the Sandbox Project may impact redband trout individuals or habitat for this species, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species. (EA p. 121)

The biological evaluation for PETS Plants indicates that project activities may influence individual plants or habitat; however, they will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species. (EA pp. 138-141)

10. The actions described for this project in the EA do not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Finding of Consistency with Forest Plan Management Direction

From the results of site-specific analysis documented in the EA, I conclude that:

1. The silvicultural harvest methods will meet the objectives and requirements of the Land and Resource Management Plan for the Wallowa-Whitman National Forest as amended (EA pages 9-10).
2. This action is consistent with the Wallowa-Whitman National Forest Land and Resource Management Plan, as amended (EA, Chapter 3)

Pre-decisional Administrative Project Review

As provided by the Pre-decisional Administrative Review process under 36 CFR 218 Subpart A for Forest Service proposed actions implementing land and resource management plan activities documented with a Record of Decision or Decision Notice, legal notice of the objection process was published in the Observer newspaper on November 22, 2013. The 45-day objection period ended on January 6, 2014. Four objections were received, three from groups or individuals with standing and one from an individual who did not have standing.

- As allowed under 36 CFR 218.11(a), the objections were resolved during a meeting with the objectors and subsequently withdrawn by the objectors.

Implementation

This project may be implemented immediately upon signature of this decision notice.

For further information, contact Cindy Christensen, Project Analyst, at the La Grande District, 3502 Highway 30, La Grande, Oregon 97850, or telephone (541) 962-8501.



Bill Gamble
District Ranger
La Grande Ranger District



Date

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