



United States Department of the Interior



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IN REPLY REFER TO
5400 (014)

DATE:
August 27, 2008

DECISION RECORD FOR Buck 13 Timber Sale EA #OR-014-07-02

INTRODUCTION

The effects of the proposed Buck 13 Timber Sale are analyzed in the Buck 13 Timber Sale Environmental Assessment (EA) # OR-014-07-02. This Decision Record applies only to the Buck 13 Timber Sale and follow-up hazardous fuel reduction and aspen restoration treatments as proposed in the EA (see Buck 13 Timber Sale Map, Figure 1). The timber sale is scheduled to be sold on September 17, 2008.

The Klamath Falls Resource Area (KFRA) interdisciplinary team designed the Buck 13 Timber Sale EA and analyzed the impacts of proposed actions based on: (a) current resource conditions in the project area, (b) the results of monitoring the previous decade of timber harvest activities, and (c) the need to meet the objectives and direction of the KFRA Resource Management Plan (RMP). The proposals presented and evaluated in the Buck 13 Timber Sale EA reflect what the interdisciplinary team determined to be the best balance and integration of resource conditions, resource potentials, competing management objectives, expressed interests of the various publics that commented, and concerns for the surrounding communities.

DECISION

It is my decision to implement the Proposed Action in the Buck 13 Timber Sale EA. As part of this action, the appropriate Best Management Practices (BMPs) in Appendix D of the Klamath Falls Record of Decision and Resource Area Resource Management Plan (ROD/RMP), the mitigation measures described in the EA, and the BMPs and Project Design Features (PDFs) in Appendix B of the EA will be applied. The approved action will result in the implementation of the Buck 13 Timber Sale within the analysis area and subsequent aspen restoration treatments. Specifically, this decision will result in:

Commercial Timber Harvest

Approximately 0.535 million board feet (MMBF) of timber being harvested from two timber sale units totaling about 24 acres. Approximately 161 trees will be harvested from areas outside the two timber sale units.

Silvicultural Prescriptions

Regeneration Harvest Matrix (see Figure 2):

- Approximately 15 acres will be treated to restore underrepresented ponderosa pine trees.
- Ponderosa pine trees will be favored.
- A residual stocking level of 16 to 25 large trees per acre will be maintained.
- In addition to ponderosa pines, leave trees will include true firs of all size classes and conditions. Some large defective true firs will be reserved to provide for future snags and down wood.
- All existing snags and down logs will be retained except where they present a safety hazard (see EA Appendix B, pages 60 and 61).
- Any resulting stand openings will be interplanted with ponderosa pine and rust resistant white pine (if available) seedlings.

Density Management Riparian Reserves (variable density thinning, see Figure 3):

- Approximately nine acres of riparian reserve will be thinned through variable density management.
- Trees of all size classes will be thinned with emphasis on thinning mostly from smaller and mid diameters.
- Stand densities retained after thinning will range from 100 to over 200 square feet of basal area per acre.
- Competing trees within the dripline and within 20 feet of the dripline of existing large pines will be removed. These treatments are designed to maintain the health of the residual large trees and particularly the larger ponderosa pines. No snags or down logs are designated for harvest.

Aspen Restoration Riparian Reserves:

- Approximately five acres of riparian reserve will be treated to remove most of the conifers and restore declining aspen clones.
- Selected conifers smaller than 24 inches DBH will be removed and nonmerchantable trees (trees smaller than 7 inches DBH) will be hand cut in and adjacent to existing and expired aspen clones.
- Slash will be lopped, scattered and burned to promote aspen regeneration.

Fuel Reduction

- In all timber sale units, all trees designated for cutting will be yarded to landings
- Any remaining slash will be lopped and scattered and/or piled.
- Residual concentrations of slash and piles will be utilized or burned.

Road Treatments

- Road renovation (grading, brushing, spot rocking and maintenance) - approximately 1.2 miles
- Road improvement (spot rocking) – approximately 0.25 miles
- Road decommissioning (blocking) - none
- Road obliteration - none
- New road construction - none

Figure 1 – Buck 13 Timber Sale Contract Map

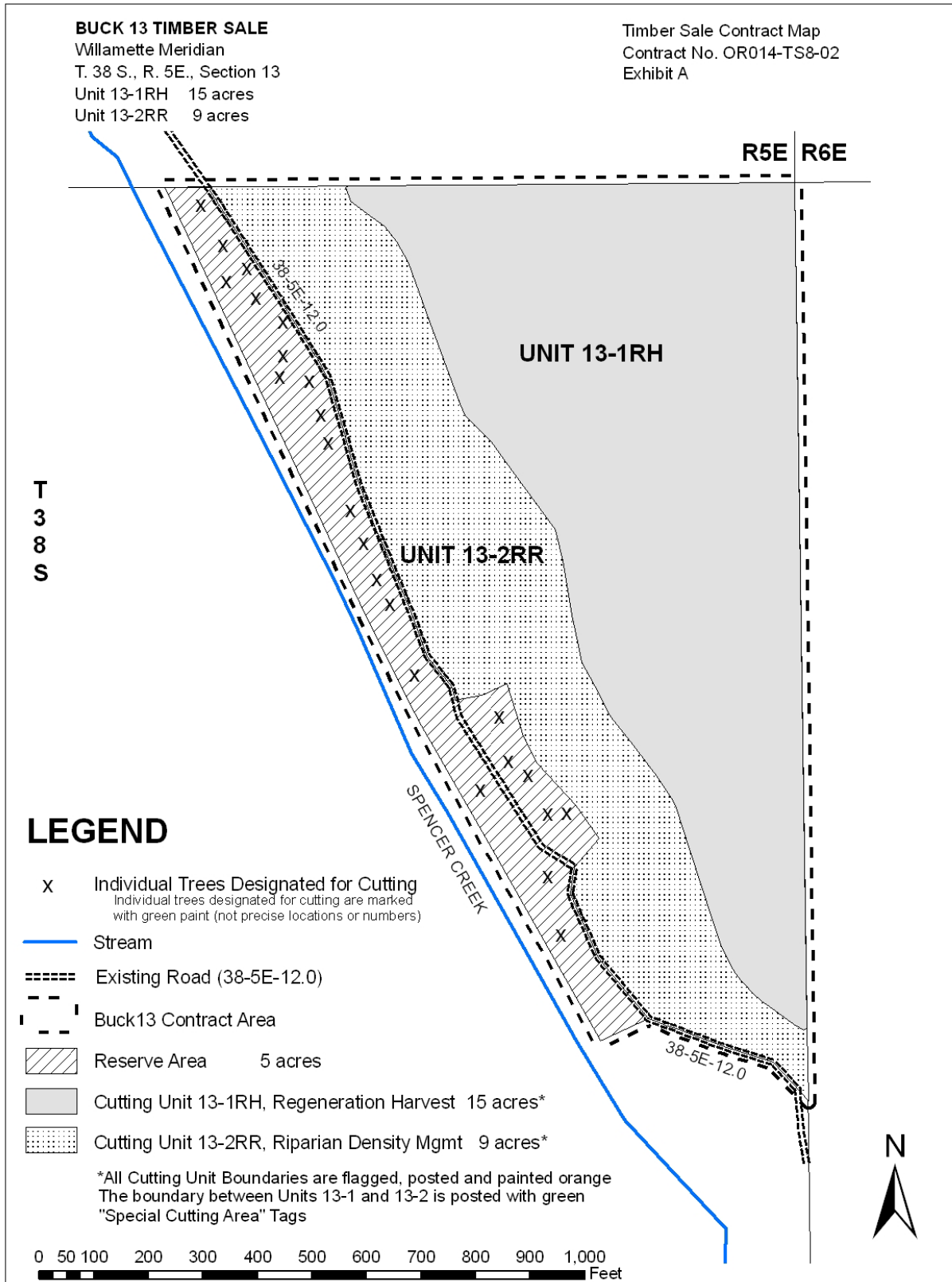


Figure 2 –Regeneration Harvest – Take versus Leave Trees for the Buck 13 Timber Sale

BUCK 13 REGENERATION TREATMENT

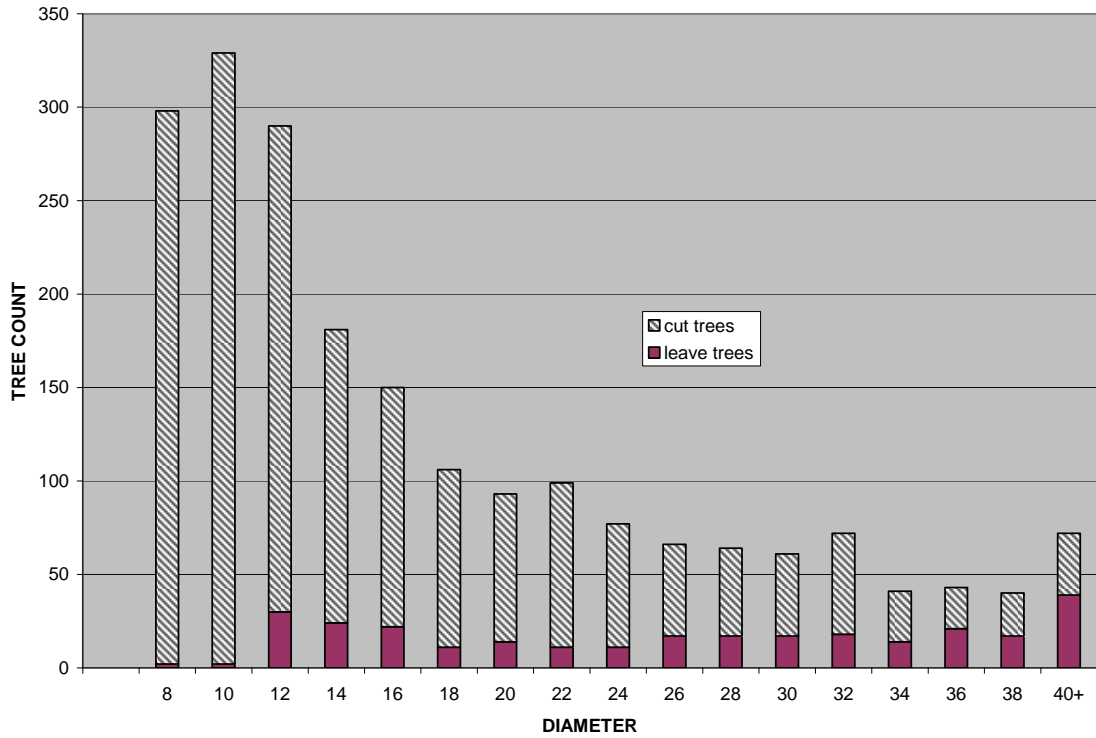
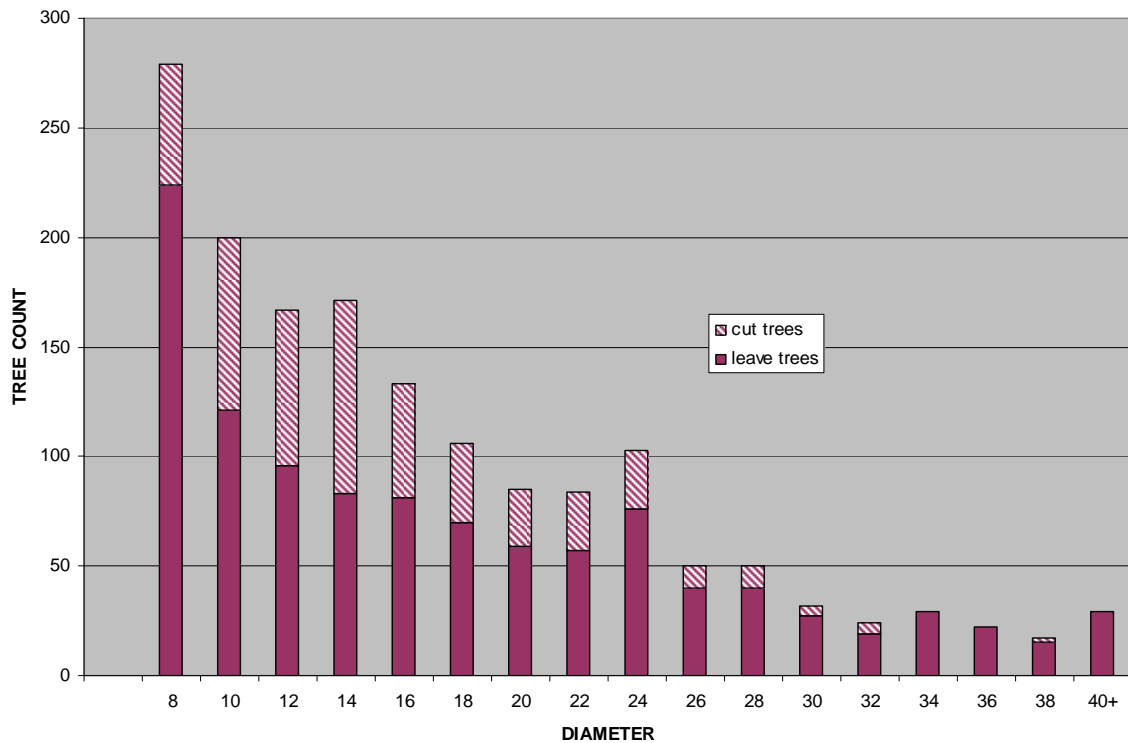


Figure 3 –Density Management – Take versus Leave Trees for the Buck 13 Timber Sale

BUCK 13 RIPARIAN TREATMENT



Monitoring

The KFRA ROD/RMP (Appendix K) requires that at least twenty percent of the timber sales, silviculture projects, or other ground disturbing activities be monitored annually. The KFRA has issued an Annual Program Summary (APS) and Monitoring Report on a yearly basis since the signing of the Resource Management Plan in 1995. The Annual Program Summary documents the results of annual timber sale monitoring as well as on-going monitoring of other resources. The 2007 Annual Program Summary and Monitoring Report, Table 19-5 on page 34, lists all the sales that have been sold and those that have been monitored to date. Monitoring related to timber harvesting has included analyzing soil impacts, stand attribute changes (basal area, trees per acre, species composition, structure, etc.), numbers and spacing of skid trails, coarse woody debris and snag requirement compliance, establishment and adherence to riparian reserve buffers, threatened and endangered species buffers, cultural resources buffers, and seasonal use restrictions. The Buck 13 Timber Sale may have some or all of these attributes monitored.

Mitigation

The PDFs and BMPs described in Appendix B of the Buck 13 Timber Sale EA, and the BMPs in Appendix D of the KFRA ROD/RMP that pertain to timber harvesting and affected resources will be implemented.

Resources Not Present

The following resources are not present within the proposed Buck 13 Timber Sale Area: Areas of Critical Environmental Concern (ACECs); prime or unique farmlands, mining claims, paleontological resources, roadless areas, wilderness areas, wilderness study areas, wetlands, solid or hazardous waste, and Wild and Scenic Rivers.

Environmental Consequences

The effects of implementation of the proposed actions analyzed in the Buck 13 Timber Sale EA are consistent with the KFRA RMP EIS. The PDFs and BMPs from the Buck 13 Timber Sale EA and the BMPs from the KFRA ROD/RMP, and the mitigation measures will minimize the effects to the affected resources and result in no effects that are greater than those described in the EA and the KFRA RMP EIS.

RATIONALE FOR SELECTION OF PROPOSED ACTION

The decision to implement the Proposed Action meets the purpose and need identified in the EA (page 4) and furthers the intent established in the RMP to harvest timber and protect other resource values. The Proposed Action is designed to meet the purpose and need for the project by improving vigor and resiliency of forested stands, reducing wildfire hazard conditions, restoring riparian vegetation (aspen restoration) and providing a sustainable supply of timber.

The No Action Alternative is rejected because it does not meet the purpose and need identified in the EA or the resource management objectives identified in the Klamath Falls RMP and the Northwest Forest Plan (NWFP) (*Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*, 1994). In addition, beneficial economic opportunities from timber harvesting would be foregone and no thinning or fuel reduction benefits would be realized.

Other alternatives considered but dropped from detailed analysis (see EA pages 14 and 15) include Salvage Only, Restoration Treatments Only, Prescribed Fire Only and Thinning with No Harvest of Large Trees Alternatives. These alternatives were rejected because they would not meet one or more parts of the Purpose and Need section of the EA.

The Final Recovery Plan for the Northern Spotted Owl (USDI FWS 2008) was published after the development of the spotted owl analysis of the Buck 13 Timber Sale Environmental Assessment. Therefore the analysis was based on the Draft Recovery Plan for the Northern Spotted Owl. However, the Buck 13 Timber Sale EA is consistent with the Final Recovery Plan. The Final Recovery Plan strategy has three essential elements; barred owl control, dry forest landscape management strategy, and Managed Owl Conservation Areas. The Buck 13 timber sale area is considered a dry forest landscape. In the Final Recovery Plan recovery actions six and seven address the dry forest landscape on the east slope of the Cascades.

Recovery Action Six: Identify, maintain, and restore approximately 30–35 percent of the total dry forest (ponderosa pine, Douglas-fir, and dry grand fir plant association group) habitat-capable area as spatially dynamic high quality spotted owl habitat patches, and approximately 50–75 percent of the total moist forests (moist grand fir, western hemlock, and Pacific silver fir plant association groups) habitat-capable area as high-quality spotted owl habitat patches.

The Buck 13 Timber Sale project is consistent with Recovery Action Six of the Final Recovery Plan. The Buck 13 timber Sale area is not designated as Critical Habitat. The Buck 13 Timber Sale area consists of 29 acres of isolated habitat surrounded by a dry lake bed and early seral private and federal lands. This forest stands isolation and small patch size would not likely provide a core nest area for spotted owls (EA - page 32). As stated on page 30 of the EA, the proposed timber sale area is not within any known spotted owl territory. The closest spotted owl site is approximately 1.3 miles to the southeast. No timber harvest will occur within a spotted owl territory.

Recovery Action Seven: Manage lands in these Provinces outside of the high quality habitat patches to restore ecological processes and functions, and to reduce the potential for significant losses by stand-replacement fires, insects, and disease.

The Buck 13 Timber Sale project is also consistent with Recovery Action Seven of the Final Recovery Plan. The Purpose and Need for the proposed action as stated on page 4 of the EA are consistent with those stated in recovery action seven of the Final Recovery Plan; Improve the resiliency of residual trees, particularly the remaining large pines, from drought, insects, and disease and reduce the fuels hazards associated with high fuel loading and overstocking that makes these stands vulnerable to stand replacing wildfires.

CONSULTATION AND COORDINATION

Section 7 Consultation with the U.S. Fish and Wildlife Service (FWS) was completed for the proposed Buck 13 Timber Sale. A biological assessment dated October 26, 2007 addressed the actions proposed in the Buck 13 Timber Sale EA.

For the Buck 13 Timber Sale a determination of “May Affect, Likely to Adversely Affect” was made by the BLM for the northern spotted owl. The FWS concurred with this determination

(concurrence letter November 7, 2007; 1-10-08-F-07/0082). A “No Effect” determination was made for all other listed species.

PUBLIC INVOLVEMENT

The KFRA requested public comments on the Buck 13 Timber Sale EA on two different occasions (EA pages 6 and 7). The first was an initial scoping letter dated July 12, 2007 and mailed to approximately 130 individuals and groups on the KFRA’s EA mailing list. That letter outlined the proposed treatments for the analysis area. The resource area received one comment letter from two organizations. The issues and concerns raised were considered in formulation of alternatives for the Buck 13 Timber Sale EA (Chapter 2), analysis of the alternatives (Chapter 3) and development of mitigation measures. Issue statements and responses resulting from the scoping process are presented in the Buck 13 Timber Sale EA (pages 6-11).

Upon completion of the EA, the public was notified on June 9, 2008 through a legal notice published in the Klamath Falls Herald and News and through an EA availability letter mailed to those on the EA mailing list. Two different organizations requested and were mailed copies of the EA. Two comment letters were received from two different organizations during the formal thirty (30) day public comment period. Following are responses to relevant issues raised during the scoping process and the EA comment period:

General

Comment: When conducting commercial thinning projects take the opportunity to implement other watershed restoration activities such as reducing impacts from roads, grazing, etc.

Response: Several restoration and resource improvement projects are included in the proposed actions including five acres of aspen restoration, culturing around large pines, deferring grazing for at least three years, repairing and relocating a livestock fence to ownership lines, reintroducing fire and conducting road improvement and maintenance operations (EA Proposed Action page 1).

Aquatic Conservation Strategy

Comment: Harvesting large trees in the riparian reserves does not contribute to attainment of ACS objectives. Removing numerous trees between 20 and 38 inches DBH from the riparian reserves will retard attainment of ACS objectives.

Response: The Density Management (thinning) being conducted in the riparian reserve areas is relatively light with the vast majority of the trees harvested being 20 inches DBH and smaller (see Figure 3). Some large trees will be removed from the riparian reserve. All of those large trees are true firs, and most are encroaching upon and competing with large at risk and declining ponderosa pines. The “at risk” pines represent the largest trees in the Buck 13 Timber Sale area. Many of the pines ranging in size from 20 to over 60 inches DBH are succumbing to competition from dense stands of true firs (see EA Figure 5, page 23).

The proposed density management prescription was analyzed with respect to attainment of the nine Aquatic Conservation Strategy objectives (see EA- Hydrology, pages 42-45 and Aquatic Wildlife Species, pages 46 – 47). It was determined that the harvest levels prescribed will help accomplish the basal area reductions needed to increase the likelihood that large legacy pines will survive by reducing competition for space and water. The fact that some the trees selected for harvest are larger than 20 inches does not diminish the capacity of the riparian reserve in meeting ACS objectives once the prescription is implemented. This action will have a positive effect on

maintaining the declining pine component of the riparian reserve and this will have long-term benefits to stand diversity and increase resiliency to disturbances such as disease and insect infestations.

Fire/Fuels

Comment: Logging may increase fire hazard by making the stand hotter, dryer and windier.

Response: Harvesting of trees by itself can increase wildfire risks through accumulation of slash and changes in canopy cover. However, the Buck 13 Timber Sale includes several fuels reduction treatments that when integrated together will minimize the generation of activity fuels and reduce fire severity and risks (Buck 13 Timber Sale EA page 1 and Table 1 page 13). These treatments include submerchantable and commercial thinning of overstocked areas, whole tree and gross yarding, piling, lop and scatter and post treatment prescribed fire. Suppression costs and resource impacts are expected to be reduced as a result of the proposed treatments. The overall effect of the proposed action is expected to modify the present fuel condition class so that it will more accurately resemble historic conditions thereby benefiting multiple resources. As a result of all actions proposed including harvesting, the wildfire severity and risk is not expected to increase.

One of the objectives of the proposed action is to reduce fuels to lower the potential of a stand-replacing fire but maintain sufficient canopy to meet wildlife and other resource objectives. Recent findings have validated that thinning of forested stands can reduce hazardous fuels and fire intensities. The Cone Fire occurred on September 26, 2002 within the Blacks Mountain Experimental Forest on the Lassen National Forest. The fire was unique in that it burned into several mechanically thinned and underburned units. The fire effects changed from predominately a stand replacing crown fire in the unthinned area to a ground fire with lower intensities when it reached the thinned units. More trees survived in the thinned unit than in the unthinned unit (Jablonski, October 2003). Some of the proposed Buck 13 treatments are similar in design to those that were implemented on the Blacks Mountain Experimental Forest as well as other thinning/fuel reduction treatments implemented on the KFRA where similar successful results have been achieved.

Comment: Fuel Reduction should focus on reducing ladder fuels and restoring ecological processes.

Response: Thinning and fuels reduction objectives for this project do focus on treating ladder fuels, smaller trees, surface fuels, and activity fuels. Follow-up fuel reduction treatments (whole tree/gross yarding, lop and scatter, piling, and underburning) are proposed to meet fuels management objectives and modify the present Condition Class III, reducing it to Condition Class II (see EA pages 10, 12, 25 and 26). The overall effect of the proposed action is expected to modify the present fuel condition class so that it will more closely resemble historic conditions thereby benefiting multiple resources.

Comment: Disclose the potential of a stand replacing fire.

Response: The EA identifies that by not treating dense, overstocked stands and reducing down fuels, the potential for stand replacing fires is greater under the No Action Alternative (refer to EA pages 20 and 26). The Buck 13 Timber Sale area has been classified by resource specialists as Fire Regime I, Condition Class III (EA page 26). This means that the area historically contained high frequency, low intensity fires, however there has been a high level of departure from this historic forest condition. This puts the risk of loss of key ecosystem components from stand replacing fires between moderate and high.

Comment: Plantations are a fire hazard. Studies have shown that plantations are more conducive to fire spread and severity.

Response: Continuous, even-aged plantations are more prone to high rates of fire spread and severity. Assuming that this comment refers to planting pine seedlings in the 15 acre regeneration harvest area, the resulting stand of trees will not resemble a continuous plantation. The retention of 16 to 25 large green trees per acre and additional desirable trees of all diameter classes will maintain approximately 35% canopy closure. The resulting stand will be much different than a continuous pine plantation. Fire hazard will also be much reduced as compared to a continuous even-aged pine plantation.

Roads

Comments: Reduce the amount of roads in the project area. Conduct no new or temporary road construction.

Response: The one main access road in the project area, the 38-5E-12.0 Road, will be improved and maintained where necessary. The road accesses private lands and therefore cannot be closed or removed. No other opportunities exist in the timber sale area for road decommissioning. No new road construction is proposed. Harvest operations will not take place during the seasonally wet portion of the year except when conditions are present for snow logging, thereby minimizing road damage and resource impacts from road erosion and sedimentation. In addition, the proposed road improvements will repair present drainage issues.

Vegetation

Comment: Avoid regeneration harvest. Regen harvest is not needed or desired.

Response: Regeneration harvest is needed in Unit 13-1 of the Buck 13 Timber Sale area to promote retention and restoration of tree species (mainly ponderosa pine) that were more prevalent in historic stands. The current stand structure is dominated by encroaching true firs and declining groups of large pines. Many of the true firs are also decadent and declining. Regeneration harvest will remove many of the competing and decadent true firs, retain nearly all of the ponderosa pines and create some space to plant shade intolerant pine seedlings.

Regeneration harvests are analyzed in the KFRA RMP. In 1999 Plan Maintenance clarifies what a regeneration harvest is and the constraints involved when implementing (See page 70 & 71 of 2004 Annual Program Summary and Monitoring Report). The KFRA RMP projected 131 acres per year of regeneration harvests (Table R-1, page R-11).

In the first decade the KFRA implemented 193 acres of regeneration harvests, approximately seventeen percent (17%) of what was planned. The effects of regeneration harvest including effects to wildlife of the proposed action are within those analyzed in the FEIS and therefore the proposed action is in compliance with the RMP.

Comment: Do not cut trees greater than 20.9" DBH

Response: The KFRA ROD/RMP (page E-3) specifies that "...trees in all size classes are eligible for thinning in order to reduce stocking to site capacity." The KFRA monitors stand structure and forest conditions on an annual basis (see Fiscal Year 2007 KFRA Annual Program Summary and Monitoring Report pages 84-88). The density management prescription implemented in the riparian reserve unit will leave variable tree densities ranging from 100 to over 200 square feet of basal area. Most of the trees designated for harvest in the riparian reserve density management

unit are 20 inches DBH and smaller. Most of the trees designated for harvest in the matrix regeneration harvest unit are 20 inches DBH and smaller. Some trees larger than 21 inches DBH will be harvested in both units. In many cases these “larger trees” are being thinned from the area immediately adjacent to the driplines of very large pines (see Silvicultural Prescription Buck 13, EA page 64). In many instances, limiting the thinning diameters to 21 inches would result in not removing enough trees to benefit the large pines and maintain or improve their resiliency.

While retaining all large trees may be desirable to some of the public, there is no basis for a 20.9” tree diameter limit for this project. Stand diversity has been maintained in similar previous projects as verified by monitoring (refer to Annual Program Summaries). Wildlife habitat and stand diversity is expected to be retained with this project as well. Therefore, the KFRA sees no need to modify its prescription to limit harvesting to certain diameters when current prescriptions are meeting the multiple RMP objectives for Matrix and Riparian Reserve lands and the purpose and need of the EA.

Snags

Comment: Retain abundant snags and coarse wood and green trees for future recruitment of snags and down wood.

Response: No snags or down logs are designated for harvest. The only snags that will be cut are those that present an operational safety hazard or trees that were alive when marked and have subsequently died. Snag retention requirements are listed in Appendix B of the EA. As described in the EA, a minimum of 2.4 snags per acre would be retained (where available) to meet the 60% optimum cavity nesting habitat in the project area. An estimate of existing snag numbers from timber cruise counts, (see EA Figure 5, page 23) indicates that current snag numbers are well in excess of RMP requirements. The Buck 13 Timber Sale area currently has approximately 10 snags per acre 20 inches DBH and larger and approximately 33 snags per acre eight inches DBH and larger. In addition, retention of 16 to 25 large green trees in the regeneration harvest unit will provide large trees for future snag and down wood recruitment. The riparian reserve density management unit will also maintain large numbers of large green trees for snag and down wood recruitment.

Monitoring of post-harvest snag totals varies from data collected in plots to 100% tallies of a harvest area. The 2007 Annual Program Summary and Monitoring Report presents the most recent snag data from a KFRA sale, Thin Sheep Timber Sale. Total snags/acre remaining in the Thin Sheep Timber Sale area was 8.61snags/acre (page 86). Public comments received recommended 6-10 snags/ha (4.2 snags/acre). Our recent sale contains more than twice the number of post harvest snags that were recommend. Previous Annual Program Summaries also document compliance with RMP snag objectives.

Wildlife

Comment: Northern Spotted Owls need relatively dense old tree stands with good vertical and horizontal tree structure. The proposed Regeneration and Density Management Thinning will remove much of this canopy structure, which is why the habitat would be downgraded from suitable to dispersal. No mention in EA of limited operating periods for owls or consultation with the Fish and Wildlife Service.

Response: The BLM recognizes that there will be a reduction of suitable habitat for the northern spotted owl from the proposed Buck 13 Timber Sale. The EA (pg 35) states that “...approximately 29 acres of suitable owl habitat would be downgraded to dispersal habitat after

the proposed timber harvest. This equates to less than 1% of the total acres of suitable habitat within the watershed and therefore would not appreciably diminish spotted owl habitat from its current composition.” Surveys have shown that no spotted owls are currently using the Buck 13 Timber Sale area. The closest spotted owl site is 1.3 miles to the southeast (see EA page 30) and the proposed logging activities will not impact the owls at that site. The small size of the project area, approximately 29 acres, and its relative isolation, make it unlikely to provide anything except dispersal habitat for northern spotted owls. The EA further states (page 33) that “The lands proposed for harvest are classified as matrix lands under the Northwest Forest Plan and the Klamath Falls RMP. These lands were allocated primarily for timber harvest but were also designed in conjunction with the riparian reserves to connect the larger reserve areas (LSRs) within the Northwest Forest Plan area designated for spotted owls and other late successional species (USDA/USDI 1994). Within the Spencer Creek Watershed there is part of the Mountain Lakes Wilderness and two LSRs - RO 227 and RO 228 on the Fremont-Winema National Forests.” Therefore, because specific land allocations like the LSRs were set aside in the Northwest Forest Plan to address northern spotted owl habitat and populations, and there are LSRs within the Spencer Creek watershed, the proposed action will have no significant impact to the northern spotted owl populations.

Limited operating periods for northern spotted owls and other species of concern are noted in the Buck 13 EA in Appendix B on page 61.

Consultation with the US Fish and Wildlife Service is described in the Buck 13 EA on page 52.

Comment: It is likely that logging will drive the owls (northern spotted owls) out of the area and give barred owls a competitive advantage. Also, the invasion of barred owl requires that BLM provide more habitat to increase the chances that the spotted owls and barred owls can co-exist.

Response: The Klamath Falls Resource Area as well as the entire northwest has detected the movement of barred owls into was has historically been northern spotted owl habitat. The draft Northern Spotted Owl Recovery Plan is presently addressing the specifics on how to address the invasion of the barred owl into the Northwest Forest Plan Region. Presently there is little data to support that spotted owls and barred owls can co-exist (Courtney et al. 2004).

Again, surveys have shown that no spotted owls are currently using the Buck 13 Timber Sale area. The closest spotted owl site is 1.3 miles to the southeast (see EA page 30) and the proposed logging activities will not impact the owls at that site. The small size of the project area, approximately 29 acres, and its relative isolation, make it unlikely to provide anything except dispersal habitat for northern spotted owls.

Comment: Regeneration harvest would remove most of the canopy and expose northern goshawks to predation.

Response: No northern goshawks are known to occupy the Buck 13 Timber Sale area (see EA page 31). Goshawks may use the sale area for foraging.

Comment: Avoid impacts to raptor nests and enhance habitat for diverse prey species.

Response: No raptor nests have been located in the Buck 13 Timber Sale area. If any nest sites are located during harvest activities, the sites will be protected as prescribed in the KFRA RMP.

Requirements in Appendix B of the EA to retain snags, down woody debris and recruitment trees will provide habitat for raptor prey species.

Comment: Fisher, wolverine and marten have been spotted in the region. Regeneration and density management logging would remove large trees, snags and downed wood, which are often used by furbearers.

Response: Forest carnivore surveys in the Spencer Creek Watershed were conducted in 1998-2001 and in 2006. Of the species mentioned above, only the American marten were located (see EA page 31). The Pacific Fisher is not known to use the Buck 13 Timber Sale Area and the minimum patch size for the fisher is 120-125 acres (BLM 1995). The small patch size (29 acres) and isolation of the Buck 13 Timber Sale area make it unsuitable for fisher habitat.

The Buck 13 Timber Sale will remove some large trees through regeneration harvest and density management, however, the vast majority of the large trees will be retained (see Figures 2 and 3). No snags are designated for harvest and the regeneration harvest requires the maintenance of at least 120 feet of large down wood.

Comment: According to the EA, there is less than 1,500 acres of white-headed woodpecker habitat in the Spencer Creek Watershed. Due to the lack of white-headed woodpecker habitat, this timber sale should avoid removing such habitat.

Response: White-headed woodpeckers are associated with large ponderosa pine trees, trees larger than 26 inches DBH (Altman 2000 and Bull 1990). The Buck 13 Timber Sale attempts to maintain white-headed woodpecker habitat through thinning around large pine trees in the sale area. Nearly all of the existing ponderosa pine trees in the Buck 13 Timber Sale area will be retained. Therefore, existing white-headed woodpecker habitat should also be maintained or improved.

Carbon Storage and Climate Change

Comment: The purpose and need to produce commodities is no longer valid and needs to be reconsidered in light of climate change and the overwhelming need to store carbon in living ecosystems.

Response: Forest commodities including sustainable supplies of timber for processing in surrounding communities is an important part of the BLM's management direction and contributes to the economic stability of local communities and industries (see EA pages 51 and 52). The Oregon and California Railroad and Coos Bay Wagon Road Grant Lands Act (O&C Act) provides the legal authority for the management of O&C lands by the Secretary of the Interior. The O&C Act requires that the O&C lands be managed "...for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principal of sustained yield for the purpose of providing a permanent source of timber supply, protecting watersheds, regulating stream flow, and contributing to the economic stability of local communities and industries, providing recreational facilities..."

Scoping for this project identified resources to analyze, compare, or describe the environmental effects of the proposed actions for illuminating or predicting the potential effects. The assessment addressed direct, indirect, and cumulative impacts of each action associated with the proposed timber sale and fuel treatments to soils, wildlife, vegetation, hydrology, and other resources. All critical issues identified during scoping were subsequently analyzed in the EA. Comments on the environmental assessment raised broad questions about carbon storage and climate change in

comments made during public review of the EA. I believe the 1994 KFRA RMP [Final] FEIS addresses this issue on pages 4-7 and 4-8 sufficiently but I will clarify here.

While it is not speculative that some change in climate conditions will occur in the future, it is not possible to reasonably foresee the specific nature or magnitude of the changes. This uncertainty within the scientific community regarding global warming and climate change was noted in the 1994 FEIS (See Page 4-7 and 4-8). The FEIS analysis assumed a reduction in carbon storage capacity as a result of harvesting old growth forests and an increase of carbon dioxide into the atmosphere from prescribed burning on BLM lands. The FEIS analysis also assumed that some carbon storage loss from harvesting old growth would be offset by the beneficial effect of thinning forests that promotes growth, reduces wildfire risk and results in greater carbon storage capacity. The impacts of this timber sale as part of the entire planned vegetation management program are within the assumptions of the level of activities analyzed in the 1994 FEIS. There is no information that the effects of this sale in combination with all other sales proposed under the RMP are any greater than those already analyzed for in the RMP.

Harvest of wood products via sustainable silvicultural systems such as uneven-aged management, density management and regeneration harvests practiced by KFRA can contribute to carbon storage in a variety of ways. Wood products can be manufactured into long lasting products like lumber and plywood and substituted for steel and concrete which require much more energy to produce (OFRI 2007). In addition, some of the residual noncommercial material is proposed for conversion into biomass to produce energy, fuel, and electricity. Generally, biomass plants release 96-98% less CO₂ into the atmosphere compared to open pile burning (Placer County Executive Office & TSS Consultants, 2008). Therefore, the proposed treatments will provide carbon storage and reduced CO₂ emissions benefits as well as the retention of a vigorously growing uneven-aged forest that will actively continue to store carbon.

The use of harvested materials to create wood products merely reallocates the carbon from the bole of the tree into wood products. Manufactured wood products decay slowly and release carbon gradually as they do, while biomass can be used to produce energy that provides an alternative to fossil fuels (Millar et al. 2007). The combined carbon sequestration value of an existing forest and wood harvested from the same forest and used as a substitute for concrete outweighed that of pure carbon sequestration in an old growth forest (OFRI 2007). This could allow for more carbon sequestration in the long run while still achieving economic objectives.

In addition, the thinning process will increase individual tree vigor and reduce the risk of mortality as a result of insects, disease or stand replacing fire (Millar et al. 2007, OFRI 2007). “During the 2002 U.S. wildfire season, approximately 92,000 ha of forest land experienced catastrophic stand replacing fire in four of the season’s largest fires. We found that had these 92,000 ha been thinned prior to the fire events there would have been a 59.6% reduction in CO₂ released.” (Hurteau et al 2008)

The downed woody debris requirements in the KFRA ROD/RMP (page 23) and the Northwest Forest Plan (page C-40) require that at least 120 linear feet of logs, 16” DBH or greater be left on each acre in areas of regeneration harvests. In addition, in the regeneration harvest area, all existing down woody debris are reserved from harvest. Follow-up prescribed burning operations will address the need to retain large coarse woody debris in the burn plans. Historically, the KFRA implements early cool spring prescribed burns to retain stand attributes like coarse woody

debris and as well as minimize mortality to residual trees. These measures will help address the need for carbon to be returned to the soil as organic matter in the form of large woody debris. For the above reasons, the cumulative impact of density management and regeneration harvest will have minimal effects on the overall carbon storage potential of the project area.

Noxious Weeds

Comment: Take proactive steps to avoid the spread of weeds. Avoid and minimize soil disturbance. Retain canopy cover and native ground cover to suppress weeds.

Response: The proposed timber sale area was surveyed for botanical resources in 2003. No noxious weed populations were found in the timber sale area. Measures to prevent the spread of noxious weeds are outlined in Appendix B of the EA (page 62). Impacts related to noxious weeds are addressed in the Buck 13 Timber Sale EA on page 25.

Soils

Comment: Protect soils by avoiding road construction, minimizing ground-based logging, and avoiding numerous large burn piles.

Response: Soil issues and concerns are addressed in detail in the Buck 13 EA on pages 36 to 40 and in the KFRA RMP (pages 28 to 30 and Appendix D). The effects of ground based logging are also discussed and analyzed. The KFRA annual soil monitoring results can be found in the Annual Program Summary and Monitoring Report and monitoring to date indicates that effects of similar timber harvest activities are within the RMP standards. Soil disturbance does not necessarily equate to soil compaction. The KFRA limits ground based operations to those periods when the soil moisture is twenty percent (20%) or less at six (6) inches in depth regardless of the time of year. Operations are normally limited to May 15 to November 1 depending upon the soil moisture criteria stated above (see EA, Appendix B). Operations are allowed when winter logging conditions exist and logging can be accomplished over snow. The effects to soils have been sufficiently analyzed and potential effects are within those thresholds analyzed in the KFRA RMP/EIS.

Alternatives Considered

Comment: The EA should have considered a wider range of alternatives. Considering only one action alternative violates NEPA's mandate for informed decision-making.

Response: Two alternatives were considered in depth; No Action as well as the Proposed Action. The Proposed Action meets the purpose and need identified in the EA (page 4) and furthers the intent established in the RMP to harvest timber and meet other resource objectives; wildlife, soils, snags, coarse woody debris, improving vigor of forested stands, and reducing wildfire hazard conditions.

Other alternatives were considered but were dropped from detailed analysis (see EA pages 14 and 15) included Salvage Only, Restoration Treatments Only, Prescribed Fire Only and Thinning with No Harvest of Large Trees Alternatives. These alternatives were rejected because they would not meet one or more parts of the Purpose and Need section of the EA.

CONCLUSION

A. Consideration of Public Comments

I have reviewed the public comments summarized above and have discussed them with the interdisciplinary team of specialists on my staff. On August 13, 2008 I conducted a field inspection of the Buck 13 Timber Sale area. I have concluded that the EA and this DR contain sufficient site specific information to implement the proposed action. The comments received do not provide any substantially new information or new analysis, nor do they identify substantial new data gaps that would indicate additional analysis is needed. Finally, the comments do not identify any significant new data which would alter the effects described in the EA or in the RMP EIS. I am confident that the Buck 13 Timber Sale EA represents a thorough analysis of impacts to affected habitats and species, in light of the more comprehensive analysis done in the Klamath Falls Resource Area RMP to which the Buck 13 Timber Sale EA is tiered. The responses to public comments contained in this Decision Record also provide an explanation of BLM's assumptions and basis for conclusions.

B. Plan Consistency

Based on the information in the Buck 13 Timber Sale EA and in the record, I conclude that this action is consistent with the Klamath Falls Resource Area Resource Management Plan.

Project consistency with the nine ACS objectives as described in the 1994 NWFP ROD on page B-10 was completed. I find that the proposed management activities are consistent with the Aquatic Conservation Strategy objectives and would not prevent or retard attainment of any of the nine ACS objectives, and have disclosed the effects on the ACS objectives on page 44 of the EA.

The action will help to move this portion of the landscape towards the desired future conditions considered in development of the RMP. The actions will comply with the *Endangered Species Act*, the *Native American Religious Freedom Act*, cultural resource management laws and regulations, and Executive Order 12898 (Environmental Justice). This decision will not have any adverse effects to energy development, production, supply and/or distribution (per Executive Order 13212).

C. Finding of No Significant Impact

No significant effects were identified. No effects beyond those anticipated in the KFRA RMP EIS would occur. Refer to the accompanying Finding of No Significant Impact.

D. Summary

In consideration of public comments, the consistency with the RMP and the finding that there would not be any significant impacts, this decision would allow for activities related to the Buck 13 Timber Sale.

As outlined in 43 CFR § 5003 Administrative Remedies at § 5003.3 (a) and (b), protests may be made within 15 days of the publication date of a notice of sale. Publication of such notice in *The Klamath Falls Herald and News*, Klamath Falls, Oregon constitutes the decision date from which such protests may be filed. Protests shall be filed with the authorized officer and contain a written statement of reasons for protesting the decision.

43 CFR 5003.3 subsection (b) states: "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail or facsimile protests. Only written and signed hard copies of protests that are delivered to the Klamath Falls Resource Area office will be accepted.

/s/ Donald J. Holmstrom
Donald J. Holmstrom, Manager
Klamath Falls Resource Area
Lakeview District, Bureau of Land Management

8/27/2008
Date

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