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August 17, 2011

IN REPLY REFER TO:
1790/5400 (ORL040)

DECISION RECORD #2 FOR
SPENCER CREEK TREATMENTS EA #OR-014-08-09
PROJECT: REPLACEMENT GAL TIMBER SALE

INTRODUCTION

The effects of the Replacement Gal Timber Sale, included in this Decision Record (DR) are analyzed in the Spencer Creek Treatments Environmental Assessment (EA) #OR-014-08-09. This EA analyzed multiple proposed actions in the Spencer Creek watershed with implementation proposed over a five to ten year period. It was anticipated that separate Decision Records would be prepared at the time specific projects were proposed. I will be making additional decisions in the future to implement other proposed actions analyzed in the Spencer Creek Treatments EA.

The Klamath Falls Resource Area (KFRA) interdisciplinary team analyzed the Replacement Gal Timber Sale based on: (a) current resource conditions in the project area, (b) the results of monitoring the previous decade of timber harvest activities, (c) meeting the purpose and need as identified in the Spencer Creek Treatments EA, (d) implementation of the management action and direction stipulated in the 1995 Klamath Falls Resource Area Resource Management Plan (RMP), and (e) comments from the public. The proposals presented and evaluated in the Spencer Creek Treatments EA reflect what the KFRA Interdisciplinary Team determined to be the best balance and integration of resource conditions, resource potentials, competing management objectives, expressed interests of the various publics, and the concerns of surrounding communities.

In October 2010 I initially issued Decision Record #1 for the Replacement Gal Timber Sale. Because of concerns over that decision I withdrew that Decision and the BLM entered into negotiations pertaining to the Replacement Gal Timber Sale with Klamath Siskiyou Wildlands Center (KS Wild) representing itself and two other groups, Cascadia Wildlands and Oregon Wild. In December 2010 the BLM and the groups named above reached an agreement that will be referred to in this Decision Record as "KSW Negotiated Agreement". As a result of the KSW Negotiated Agreement the original 2010 version of the Replacement Gal Timber Sale has been modified. The modifications primarily affect the proposed treatments of timber stands within suitable northern spotted owl habitat. These changes affected the acres of sale units and the harvested volume of those units; in particular, sale acres were reduced from 357 to 239 and projected timber harvest volume was reduced from 3.3 million board feet (MMBF) to approximately 1.7MMBF. Some units were postponed and could be added to the next timber sale analyzed under this EA. These units were postponed to allow time for adjustment of the silvicultural

prescriptions to meet the terms of the KSW Negotiated Agreement. The KSW Negotiated Agreement is available at the Klamath Falls Resource Area Office and it has been added to the EA as an appendix.

DECISION

It is my decision to implement the portions of the Proposed Action and Alternative 1 in the Spencer Creek Treatments EA, as modified by the KS Wild Agreement, which apply to the Replacement Gal Timber Sale and related road maintenance/improvement projects. As part of this action, applicable Best Management Practices (BMPs) in Appendix D of the KFRA ROD/RMP and the Project Design Features in Appendix B of the EA will be applied. The approved action will result in the implementation of several projects including the Replacement Gal Timber Sale (see Maps 1 and 2).

Specifically, this decision will result in:

Timber Harvesting, Replacement Gal Timber Sale (see map 1)

Harvest of approximately 1.7 MMBF from four timber sale units totaling approximately 239 acres:

- Unit 19-1, 16 acres
- Unit 19-2, 10 acres
- Unit 19-3, 25 acres
- Unit 29-1, 188 acres

Harvest includes the following (each management action listed below is part of the total 239 acres):

- Variable Density Management in Dispersal Habitat (166 acres)
- Variable Density Management in NRF Habitat (9 acres)
- Plantation Thinning/Density Management in Dispersal Habitat (51 acres)
- Three Patch Cuts in Dispersal Habitat (13 acres)

Yarding

- All 239 harvest acres will be yarded with standard ground based yarding equipment

Roads

- Approximately six miles of road will receive normal road maintenance (grading, ditch cleaning, brushing, etc.)
- Approximately 167 Stations (3.2 miles) of road renovation/improvement including surfacing
- Previously closed roads that need to be re-opened for timber sale activities will be blocked upon completion of timber sale related activities
- Currently closed roads with ineffective closures will be reclosed with barriers or gates designed or located to prevent vehicle passage. Two such roads have been identified for re-closure in the Replacement Gal Timber Sale Area. These roads are the 38-6E-29 (approximately ½ mile) and the 38-6E-29.2b (approximately ¼ mile). These two roads are also roads that will be used during the timber sale.
- Removal of 15 sediment traps from roads in the analysis area
- All access to the sale areas will be on existing system roads requiring normal periodic maintenance
- No hauling will occur in wet weather conditions that affect road surface stability and sediment runoff regardless of the season of use. Hauling of timber, biomass or rock will be suspended if road conditions are not acceptable. Winter hauling will be allowed outside of the seasonal restriction dates only when roads are dry, frozen or snow covered.

Wildlife Management

Northern Spotted Owl

- A nine acre stand of nesting, roosting and foraging (NRF) habitat will be entered for commercial timber harvest and as per the KSW Negotiated Agreement, the stand will remain NRF habitat after harvest.
- A seasonal restriction for nesting spotted owls will be implemented during the nesting season (March 1- September 30). No trees will be felled within ¼ mile of any northern spotted owl nest to reduce disturbance related impacts to nesting owls. If non-nesting is determined during the critical nesting period the seasonal restriction may be waived by the local biologist.
- Project Design Features (PDFs) pertaining to wildlife and wildlife habitat described in Appendix B of the Spencer Creek Treatments EA and the BMPs in the KFRA ROD/RMP applying to the planned actions, will be implemented for all actions conducted.

Hydrology and Aquatic Species

- In 2001, surveys for aquatic mollusks were completed within the analysis area. During these surveys, the Klamath pebble snail (*Fluminicola sp.)* was documented in Miners Creek in section 33. These sites will be protected during Riparian Reserve thinning treatments by implementation of the Best Management Practices (BMPs) and Project Design Features (PDFs) as described in Appendix B of the Spencer Creek Treatments EA.

Hazardous Fuels Treatments

- Where operationally feasible, whole tree yarding of all material designated for harvest will be done to reduce activity generated hazardous fuel loading. If the trees are too large to yard whole, the top will be left attached to the last log and yarded with it.
- In all harvest areas, residual materials will be treated with a variety of methods to reduce fuels including: whole tree yarding, hand and/or machine piling, lopping and scattering and/or burning.
- Landing piles will be utilized for firewood, chips, hog fuel and/or other products, or burned.
- Hand and/or machine piles will be burned or left for wildlife purposes.

Monitoring

- The BLM will monitor soil impacts of ground disturbing operations implemented as part of the Spencer Creek EA to assure compliance with the KFRA Resource Management Plan Best Management Practices and to establish an informational baseline regarding soil disturbance.
- Pre and post stand exam data will be collected in timber sale areas to measure changes in vegetation components including; canopy closure, tree density, tree composition, fuel loading, snags, and coarse woody debris.
- The KFRA annually monitors nesting status of all known northern spotted owl sites.

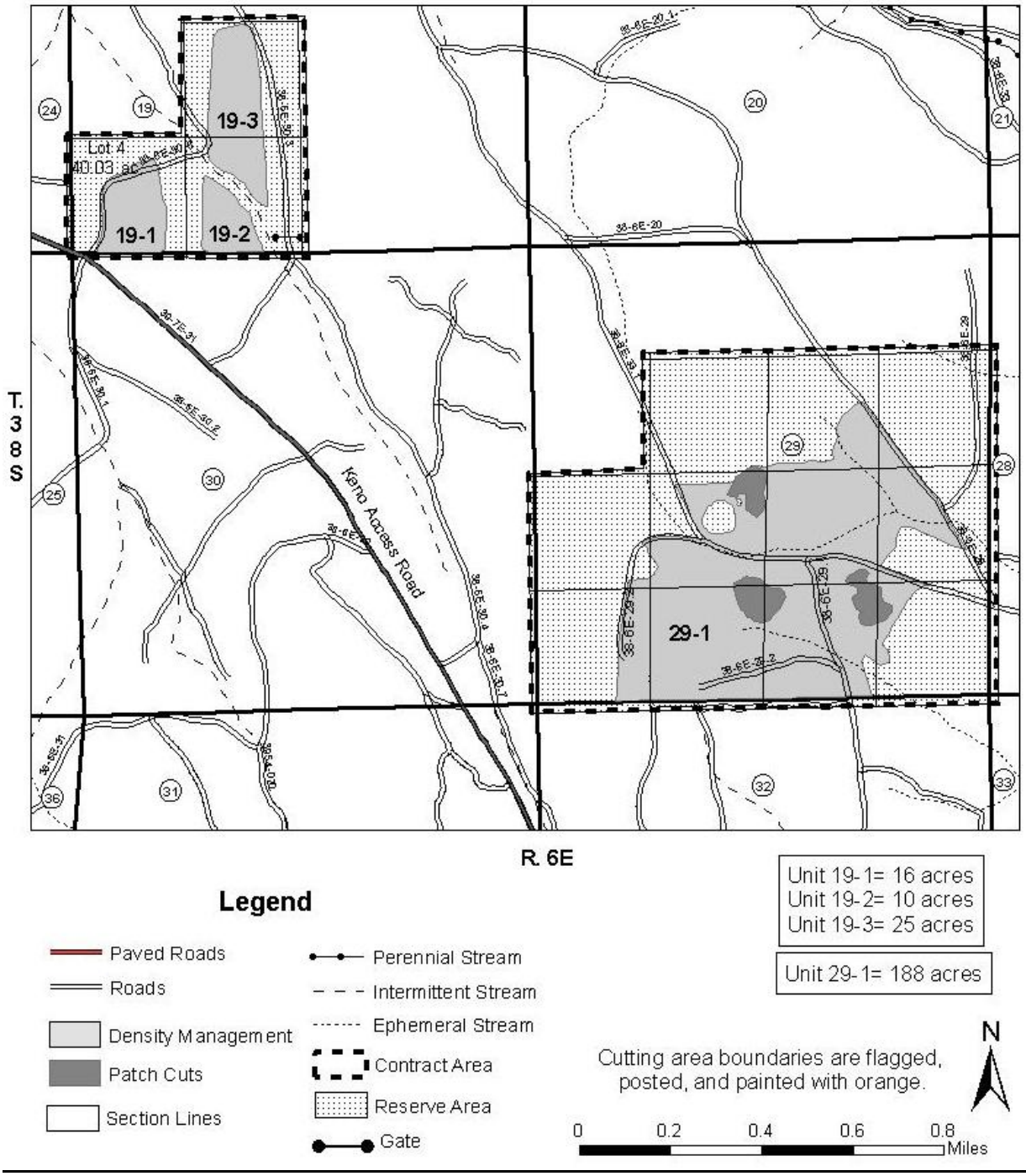
Mitigation

No additional mitigation was deemed necessary and thus none was described in the EA or in this Decision Record.

Map 1, Replacement Gal Timber Sale

Timber Sale: Replacement Gal
Willamette Meridian
T.38S., R.6E., Sections 19 and 29

Timber Sale Contract Map
Contract No. OR014-TS11-02
Exhibit A



CONSULTATION AND COORDINATION

Consultation with the U.S. Fish and Wildlife Service (FWS) as required under Section 7 of the Endangered Species Act (as amended) was completed for the Spencer Creek Treatments EA including the 239 acres of Timber Harvest described above. For the original timber sale, the BLM made a "May Affect, Likely to Adversely Affect" determination for the northern spotted owl due to the downgrading of suitable habitat to dispersal habitat within two spotted owl territories (Spencer Creek and Surveyor North). That reduction of habitat resulted in those territories dropping below habitat thresholds to maintain the spotted owls in those territories. The FWS concurred with this determination and issued a Biological Opinion (81450-2010-F0025) on August 03, 2010. The remainder of the planned actions would "May Affect, Not Likely to Adversely Affect" the remaining spotted owl territories in the project area. The Service also concluded that the actions as originally proposed would not jeopardize the continued existence of the northern spotted owl.

When the KFRA entered into the agreement with KSW, the BLM agreed to maintain suitable NSO habitat within the project area. This retention of habitat would reduce the potential impacts to spotted owls. The planned action as described in this Decision Record would maintain the current level of spotted owl habitat within the Spencer Creek and Surveyor North owl territories and therefore reduce the effects to the spotted owls. The Service and BLM biologists helped to design and review modifications to the original Timber Sale to meet the KSW agreement. The determination for these revised planned actions is "May affect, Not Likely to Adversely Affect" for the spotted owl territories in the project area. Since the impacts to the spotted owl from the planned action were reduced (versus increased) re-initiation of consultation was not triggered and the original BO was retained. The nine acres of NRF habitat that will be entered in the planned action will be maintained as NRF post-harvest. The USFW Service has field reviewed this unit and concurred with this determination.

A "No Effect" determination was made for all other listed species and designated critical habitat.

The State Historic Preservation Office (SHPO) was notified of this project in accordance with 36 CFR §805.5(b). They have raised no objections to the BLM's finding that it would not adversely impact sites of cultural or historic significance.

2011 REVISED RECOVERY PLAN

In June 2011, the U.S. Fish and Wildlife released the 2011 Revised Recovery Plan (USDI/FWS 2011). The Revised Recovery Plan builds extensively on the 1992 Draft Recovery Plan for the Northern Spotted Owl (USFWS 1992b), the 1994 NWFP (USDA and USDI 1994a, b), and the 2008 Recovery Plan for the Northern Spotted Owl (USFWS 2008b). Unlike previous versions of the spotted owl recovery plan, this Revised Recovery Plan identifies discrete recovery units throughout the entire range of the spotted owl such that each unit provides an essential survival and recovery function for the species. These recovery units are based on the physiographic provinces described by the Interagency Scientific Committee in 1990 (Thomas *et al.* 1990: 61) and the Northern Spotted Owl Recovery Team (USFWS 1992b) which divided the range of the spotted owl into 12 provinces based on differences in vegetation, soils, geologic history, climate, land ownership and political boundaries. The proposed action occurs within the eastern Oregon Cascades province. For the east Cascades province and the proposed action there are two relevant Recovery Actions in the Revised Recovery Plan.

Recovery Action 10 - Conserve spotted owl sites and high value spotted owl habitat to provide additional demographic support to the spotted owl population.

The planned actions will maintain the current nesting, roosting, foraging and dispersal habitat within the spotted owl home range and core areas. Therefore, the proposed project will conserve the spotted owl territories and the high value spotted owl habitat within the project area. The planned action will meet Recovery Action 10.

Recovery Action 32 - Because spotted owl recovery requires well distributed, older and more structurally complex multi-layered conifer forests on Federal and non-federal lands across its range, land managers should work with the Service as described below to maintain and restore such habitat while allowing for other threats, such as fire and insects, to be addressed by restoration management actions. These high-quality spotted owl habitat stands are characterized as having large diameter trees, high amounts of canopy cover, and decadence components such as broken-topped live trees, mistletoe, cavities, large snags, and fallen trees.
The planned actions would continue to maintain high quality spotted owl habitat. The planned actions would maintain NRF habitat throughout the project area including any of those stands considered high quality.

PUBLIC INVOLVEMENT

Public scoping input and comments were considered in development and refinement of the proposed action and alternatives, and in this decision.

Initial Scoping

The KFRA requested public input on the Spencer Creek Treatments EA in a letter mailed to "All Interested Persons" on April 4, 2008. This scoping letter outlined the proposed treatments for the analysis area and was mailed to approximately 110 persons and groups on KFRA's NEPA mailing list. Three response letters were received, some representing multiple groups and/or individuals.

EA Comments

Upon completion of the EA, the public was notified on May 28th, 2010 and given an opportunity to comment on the EA during a formal thirty (30) day public comment period. Five written comments (emails) from various organizations and individuals were received. Refer to Appendix B for EA comments and BLM responses.

2010 Field Tours

On June 10, 2010, the Klamath Falls Field Office conducted a public tour of two Environmental Analysis areas, one was the Spencer Creek Treatments EA area including the proposed Replacement Gal and Spike Timber Sales. Three members of the public attended the tour and provided comments.

One October 22, 2010 the BLM conducted another public tour of the Replacement Gal Timber Sale Area and a future EA analysis area. Refer to Appendix B for EA tour comments and BLM responses.

BLM Actions Pertaining to Comments Received

Initial scoping comments were considered in the development of the EA and alternatives. None of the later EA and Field Tour comments were of a nature to cause the interdisciplinary team to revise the Environmental Assessment. However, they were considered in sale layout, development of silvicultural prescriptions and in this Decision.

Negotiated Agreement

On December 1, 2010 the KFRA Field Office Manager and other members of the Klamath Falls Resource Area staff met with a representative of environmental groups that were potentially litigating the Replacement Gal Timber Sale. The BLM and said representative negotiated an agreement that modified the original Replacement Gal Timber Sale and withdrew litigation.

The agreement included changes to sale units and acres, and modification of silvicultural prescriptions. The Spencer Creek EA No. OR-014-08-09 Agreement is available for review at the Klamath Falls Resource Area office.

DECISION RATIONALE

The decision to implement approximately 239 acres of timber harvest activities described in the Proposed Action, Alternative 1 and the negotiated agreement with KS Wild, meets the Purpose and Need identified in the EA and furthers the intent established in the Klamath Falls Resource Area RMP to harvest timber and protect other resource values as described in the EA and other sections of this Decision Record.

Alternatives Considered

The No Action Alternative, is rejected because it does not meet the resource management objectives for the Matrix identified in the 1995 Klamath Falls Resource Area RMP and the Northwest Forest Plan. It would not address or alter many of the existing conditions and trends relative to desired healthy vegetative conditions, resource protection, and watershed restoration that were identified in the EA. With No Action, these conditions would not be improved or mitigated; certain undesirable ecological trends would continue unchanged, and, in some cases, would be exacerbated with the passage of time. In addition, economic opportunities from timber harvesting would be foregone and no thinning or fuels reduction benefits would be realized.

Other alternatives were also considered but were dropped from detailed analysis (see EA Appendix E) including Regeneration Treatments, Fuels Treatment Only, Citizens Action Alternative, and Restoration Treatments Only. These alternatives were rejected either because they would not meet one or more parts of the Purpose and Need for the project or because the actions proposed in these alternatives were included and analyzed in other alternatives.

Surveys

- Surveys for wildlife (great gray owl, northern spotted owl, northern goshawk, white-headed woodpecker, terrestrial mollusk) and botanical resources have been completed.
    - Great gray owl surveys were conducted (1996-1997;2006-2007)within suitable habitat. No great gray owls were detected during these surveys.
    - Purposive (strategic) surveys for terrestrial mollusks were conducted in the spring of 2002 within the Miner's Creek, East Miner's Creek and Upper Spencer Creek LSRs. No survey and manage mollusks were located during these surveys.
    - Priority survey and manage mollusk habitat was delineated outside of the LSRs and within the commercial timber harvest units. These priority habitat areas were buffered and reserved from the commercial harvest activity. The remainder of the planned actions occur outside of priority mollusk habitat or would not adversely affect the habitat for survey and manage mollusk species.
- Required cultural surveys are completed, no cultural resources were located.

Plan Conformance

The scoping of this project was initiated in April 2008 under the 1995 Klamath Falls Resource Area Resource Management Plan. In December 2008 this plan was revised with the Klamath Falls Record of Decision and Resource Management Plan (2008 ROD/RMP).

On July 16, 2009 the U.S. Department of the Interior, withdrew the Records of Decision (2008 ROD) for the Western Oregon Plan Revision and directed the BLM to implement actions in conformance with the resource management plans for western Oregon that were in place prior to December 30, 2008. Since project planning and preparation of National Environmental Policy Act documentation for these projects began prior to the effective date of the 2008 ROD, these projects have been designed to comply with the land use allocations, management direction, and objectives of the 1995 Resource Management Plan.

A March 31, 2011 decision by the United States District Court for the District of Columbia in Douglas Timber Operators et al. v. Salazar, vacated and remanded the administrative withdrawal of the Klamath Falls 2008 ROD and RMP. Following the March 31, 2011 decision, the KFRA evaluated this project for consistency with both the 1995 RMP and the 2008 ROD and RMP. Based upon this review, I have determined that the selected alternative is consistent with both the 1995 ROD/RMP and the 2008 ROD/RMP. Although the selected alternative contains some design features not mentioned specifically in the 2008 ROD/RMP, these design features are consistent with the ROD and RMP.

On July 21, 2011 the KFRA received direction (Instruction Memorandum No. OR-2011-063) in consideration of the Survey and Manage Settlement Agreement reached on July 6, 2011 pertaining to *Conservation Northwest et al. v. Sherman et al.,* Case No. 08-1067-JCC (W.D.Wash). The Courts set aside the 2007 RODs, putting into effect the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures, Standards and Guidelines* (USFS et al. 2001) (2001 ROD) (hereinafter referred to the 2001 S&M ROD). Projects within the range of the northern spotted owl are subject to the Survey and Manage Standards and Guidelines in the 2001 S&M ROD as modified by the 2011 Survey and Manage Settlement Agreement. The 2011 Survey and Manage Settlement Agreement makes four modifications to the 2001 S&M ROD: (A) acknowledges existing exemption categories (2006 Pechman Exemptions); (B) updates the 2001 Survey and Manage species list; (C) establishes a transition period for application of the species list; and (D) establishes new exemption categories (2011 Exemptions). The Replacement Gal Timber Sale, as analyzed in the Spencer Creek Treatments EA, is compliant with the 2001 S&M ROD as modified by the 2011 Survey and Manage Settlement Agreement (see Appendix A, 2001 ROD Compliance Review…). All priority terrestrial mollusk Survey and Manage Habitat within the Replacement Gal Timber Sale has been removed from proposed treatment areas.

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. The Spencer Creek Treatments EA and this DR contain the requisite 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. I am confident that the Spencer Creek Treatments EA plus the supplemental information, including responses to public comments contained in this DR, in addition to the more comprehensive analysis done in the Klamath Falls Resource Area RMP/EIS to which the EA is tiered, represents a thorough analysis of potential effects associated with the Replacement Gal Timber Sale.

Finding of No Significant Impact

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

CONCLUSION

Based on the information in the Spencer Creek Treatments EA and in the record, I conclude that this action is consistent with the Klamath Falls Resource Area Resource Management Plan. The action will help to move this portion of the landscape towards the desired future condition considered in development of the 1995 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).

In consideration of public comments, the consistency with the RMP and the finding that there would not be any significant impacts, this decision allows for activities related to the Replacement Gal Timber Sale including harvest of approximately 1.7MMBF of timber from 239 acres of BLM lands.

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 *8/17/2011*
Donald J. Holmstrom, Manager Date
Klamath Falls Resource Area
Lakeview District, Bureau of Land Management

APPENDIX A

2001 ROD COMPLIANCE REVIEW: SURVEY & MANAGE WILDLIFE AND BOTANY

Project Name: Replacement Gal Timber Sale **Prepared By:** Steve Hayner
Project Type: Timber Harvest and road maintenance/renovation
Date: 08/16/2011
Location:

Township	Range	Sections
38S	5E	15, 16, 23, 25, 26, & 36
38S	6E	19, 20, 24, 25, 28, 29, 30, 33, 34, & 35
39S	5E	1
39S	6E	4, 5, & 6

S&M List Date: January, 2001

Species listed below were compiled from the 2001 Record of Decision and include those vertebrate and non vertebrate wildlife and non vascular and vascular botanical species whose known or suspected range includes the Klamath Falls Resource Area according to the protocols listed below. There are no known sites for Category B, D, E, and F species. (Refer to Table A - Survey & Manage Wildlife and Botany Species.)

- Survey Protocols for Survey and Manage Strategy 2 Vascular Plants Version 2.0 (December 1998)
- Management Recommendations for Survey and Manage Lichens Version 2.0 (March 2000)
- Natural History and Management Considerations for the Northwest Forest Plan Survey and Manage Lichens Based on Information as of the Year 2000 (USDA Forest Service R6-NR-S&M-TP-03-03 2003). Survey Protocols for Survey and Manage Category A & C Lichens in the Northwest Forest Plan Area Version 2.1 (2003)
- 2003 Amendment to the Survey Protocol for Survey and Manage Category A and C Lichens Version 2.1 (2003)
- Survey Protocols for Survey and Manage Component 2 Bryophytes Version 2.0 (1997)
- Survey and Manage Protocols Protection Buffer Bryophytes 2.0 (1999)
- Handbook to Strategy 1 Fungal Species in the Northwest Forest Plan (PNW-GTR-476 October 1999), and Handbook to Additional Fungal Species of Special Concern in the Northwest Forest Plan (PNW-GTR-572 January 2003)
- Survey Protocol for the Great Gray Owl within the Range of the Northwest Forest Plan v3.0 (Jan. 2004)
- Survey Protocol Aquatic Mollusk Species From the Northwest Forest Plan Version 2.0 (Oct. 1997)
- Survey Protocol for S&M Terrestrial Mollusk Species v 3.0 (Feb. 2003).

Statement of Compliance

Pre-disturbance surveys and management of known sites required by protocol standards to comply with the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (2001 ROD were completed for the great gray owl. Some project areas proposed for treatment under this EA have not been specifically surveyed for S&M terrestrial mollusks. The terrestrial mollusk protocol (USDA/USDI 2003) identified priority habitat for surveying for specific species. Using this protocol the Bureau of Land Management (BLM) identified priority habitat for the species, and will avoid the habitat to prevent impacts. Priority habitats will be identified, buffered and removed from the proposed vegetation treatments that would be considered habitat disturbing (i.e. timber harvest). This methodology to identify habitat and avoid disturbance meets the 2001 S&M ROD by assuming occupancy within priority

habitat and protecting its microsite characteristics. The proposed project also complies with any site management for any Category B, D, and E species as identified in the 2001 ROD (as modified): no sites of any of these species (B, D, E) is present in the project area.

Based on the survey results, there are currently no known sites of Survey & Manage species that require management within the project area. Therefore, based on the information (Table A) regarding the status of surveys for Survey & Manage wildlife species and the results of those surveys, it is my determination that the Spencer Creek environmental assessment complies with the provisions of the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (a2001 ROD).

/s/:Donald J. Holmstrom *8/17/2011*
Donald J. Holmstrom, Manager Date
Klamath Falls Field Office

Table A - Survey & Manage Wildlife and Botany Species

Species	S&M Category	Survey Triggers			Survey Results			Site Management
		Within Range of Species?	Contains Suitable habitat?	Project may negatively affect species/habitat?	Surveys Required?	Survey Date Month/ year	Sites Known or Found?	
Vertebrates								
Great Gray Owl (Strix nebulosa) [1]	A	Yes	Yes	Yes	Yes	1996-1997 2006-2007	0	N/A
Mollusks								
Chace Sideband (Monadenia chaceana) [2]	B	Yes	Yes	No	No	***	0	Buffered all priority habitat
Crater Lake Tightcoil (Pristiloma arcticum crateris) [3]	A	Yes	Yes	No	No	***	0	Buffered all priority habitat
Evening Fieldslug (Deroceras hesperium) [4]	B	Yes	Yes	No	No	***	0	Buffered all priority habitat
Oregon shoulderband (Helminthoglypta hertieni) [2]	B	Yes**	Yes	No	No	***	0	Removed from survey and manage list under 2011 settlement agreement
Fluminicola no. 3	A	Yes	No	No	No	N/A	#	N/A
Fluminicola no. 1	A	Yes	No	No	No	N/A	#	N/A
Vascular Plants								
Cypripedium fasciculatum[5]	C	Yes	Yes	Yes	Yes	2004	0	No
Cypripediium montanum[5]	C	Yes	Yes	Yes	Yes	2004	0	No

*** Survey and Manage terrestrial mollusk priority habitat was removed and buffered from the timber harvest area.

[1]Pre-disturbance surveys for great gray owls are required since there is suitable nesting habitat within the project area. The required habitat characteristics of suitable habitat include: (1) large diameter nest trees, (2) forest for roosting cover, and (3) proximity [within 200m] to openings that could be used as foraging areas (Survey Protocol for the Great Gray Owl within the range of the Northwest Forest Plan v3.0, January 12, 2004). Surveys for the great gray owl were conducted in 1996-1997 using the 1995 protocol and in 2006 and 2007 using the 2004 protocol, both designed to meet Survey and Manage standards including the 2001 Survey and Manage Standards and Guidelines. Survey protocols used were "Great Gray Owl Survey protocol (1995)", and "Survey protocol for the Great Gray Owl within the Range of the Northwest Forest Plan (2004)." No great gray owls were located.
[2] Equivalent-effort pre-disturbance surveys are required for the Chace Sideband (IM-OR-2004-034) and the Oregon Shoulderband. (Survey Protocol for S&M Terrestrial Mollusk Species v3.0, 2003). Priority habitat for Chace sideband and the Oregon shoulderband on the KFRA are rocky outcrops, talus slopes and rocky areas within forest stands. This habitat was removed and buffered from the timber harvest area. The Oregon shoulderband is associated with rocks and wood debris in rocky areas within forest habitat often adjacent to areas with substantial grass or seasonal herbaceous vegetation (USDA/USDI 2004b). This habitat was removed and buffered from the timber harvest area. This species was removed from the Resource Area survey list in 2002 under the Annual Species Review process due to the change in the known and suspected range.
[3]Suitable habitat for the Crater Lake tightcoil is "perennially wet situations in mature conifer forests, among rushes, mosses and other surface vegetation or under rocks and woody debris within 10 meters of open water in wetlands, springs, seeps and riparian areas…" (pg. 43, Survey Protocol for S&M Terrestrial Mollusk Species v3.0, 2003). This habitat was removed and buffered from the timber harvest area.
[4]The evening field slug's range was extended to include the KFRA in March 2003 (pg 2 and 3 2002 Annual Species Review and Appendix A pg32., Survey Protocol for S&M Terrestrial Mollusk Species v3.0, 2003). This species may be found in perennial moist situations in mature conifer forests or meadows amongst rushes, mosses and other surface vegetation or under rocks or woody debris within 10 m of open water in wetlands, springs, seeps, and streams. This habitat was removed and buffered from the timber harvest area.
[5]Surveys for Cyperpidium fasciculatum and Cypripediium montanum were conducted in 2004 within the project area. No sites were found.

APPENDIX B

SPENCER CREEK TREATMENTS EA AND PUBLIC TOUR COMMENTS AND RESPONSES

Following, are responses to paraphrased comments from the initial scoping, EA comment period and Public Tours.

Roads and ORV/ATV Use

Issue: Reduce impacts of the road system. Roads in the project area cause or contribute to adverse impacts to streams, soil, wildlife and vegetation. Existing roads should be removed to reduce road densities down to 1.5 miles per square mile as recommended in the WSA.

Response: The BLM recognizes the impacts associated with existing roads and road construction in the Soils, Hydrology and Water Quality sections of the EA (EA pages 10 and 43-48). No new road construction is planned under the Spencer Creek Treatments EA. During the last ten years, many segments of road have been closed or obliterated in the analysis area. Analysis of the road system for the current EA concluded that there is little opportunity for further reductions in existing roads. However, analysis and public comments indicated that there were segments of currently closed roads that had ineffective barriers. The barriers had been illegally removed or were being driven around. These road segments will be reblocked and the barriers will be improved to prevent vehicle access.

The BLM has conducted extensive restoration efforts in the Spencer Creek Watershed. In the recent past the BLM, in cooperation with adjacent landowners, has undertaken efforts to improve and restore portions of the Spencer Creek Watershed in the analysis area. A summary of cooperative restoration actions taken or planned is available at the KFRA Office. The summary is titled "Watershed Restoration Treatments Implemented and Planned in the Spencer Creek Watershed". It includes actions implemented and planned by the BLM, US Forest Service and private landowners.

Within BLM's scope of authority under our long standing O&C Reciprocal Right-of-Way agreement that guides road management issues on western Oregon O&C lands, the KFRA BLM has worked to reduce road densities on BLM lands in the Klamath Falls Resource Area including roads within the Spencer Creek Watershed (See page 43 of the 2009 Annual Program Summary and Monitoring Report (APS)). Under the Upper Spencer Creek EA (OR-014-03-03) Decision Record # 2 signed 11/19/03, the KFRA BLM decommissioned 0.5 miles of road, obliterated 2.4 miles of road, installed two gates to close 0.5 miles of road, removed three stream crossings, and placed large woody debris in 0.25 miles of ephemeral/intermittent stream channels. This included collaboration and cooperation with adjacent landowners in the Spencer Creek watershed. Those landowners also blocked and obliterated several miles of roads on their lands. Two existing segments of roads totaling approximately 0.5 miles were also relocated outside of riparian reserves in the analysis area. Several additional miles of private roads adjacent to and connecting with BLM roads were closed and/or obliterated in the Spencer Creek Watershed through BLM cooperation with US Timberlands and the Rocky Mountain Elk Foundation.

In 2008 and 2009 additional large wood was placed in Spencer Creek for habitat restoration on BLM and private lands within the analysis area (see Spencer Creek Restoration Treatments EA, #OR-014-04-08). The logs were place in approximately seven miles of Spencer Creek including BLM and Private lands. Approximately 270 large cull logs were collected from past timber sale areas and slash accumulations on BLM and private lands for this purpose.

Issue: Construction of landings and reopening currently closed roads will result in increased "Equivalent Roaded Area".

Response: All of the units scheduled to be harvested will include the use of existing skid trails and landings. Two currently blocked roads will be temporarily re-opened for use during harvest activities.

These roads will be closed again when harvest activities are completed. Efforts will be made to ensure closures are effective.

Because we are using existing roads that are considered part of the permanent road system, overall roaded area should not increase as a result of the Replacement Gal Timber Sale or other actions proposed in the Spencer Creek Treatments EA.

Issue: BLM road closure mechanisms may not actually prohibit motorized traffic.
Response: The BLM has also recognized this situation and has identified two closed roads in the analysis area that had closure mechanisms which are no longer functional. The existing barriers have been moved or driven around. Both of these roads are going to be used during the Replacement Gal Timber Sale. Upon completion of the Replacement Gal timber Sale activities, both will be re-blocked with more substantial barriers and the BLM will place the barriers in strategic places to prevent motorized access.

Issue: We are extremely concerned about construction of new roads as part of this project. No new roads should be constructed. Currently closed roads should not be reopened for use.
Response: No alternative in the Spencer Creek Treatments EA proposes new road construction. No new road construction will be accomplished during the Replacement Gal Timber Sale or other vegetation management projects.

Approximately 0.75 miles of currently closed roads will be reopened for use during sale activities. These reopened roads are needed in order to reduce the length and overall amount of skid trails used to yard trees to landings. Temporarily reopening the closed roads will result in less overall impacts to soil and water than requiring excessive yarding distances. These roads will be closed following completion of sale activities. See previous issue and responses to road closure questions.

Issue: ORV use and abuse in the project area is having a continuing significant impact on the human environment and must be analyzed.
Response: The majority of the BLM lands within this treatment area are heavily forested with little opportunity for off road ATV access. While ATV and ORV access off of existing open roads is possible in some areas and are of concern for BLM, the BLM is not aware of BLM lands receiving significant off road use within the analysis area. As described above, physical barriers on two previously blocked roads in the Replacement Gal Timber Sale area are currently not effective and some motorized use is occurring on these two roads. Upon completion of harvest activities, these two roads will be re-blocked with more significant barriers and the BLM will place the barriers in strategic places to discourage motorized access.

Issue: OHV/ATV roads/trails and access should be reduced particularly at the mouth of Spencer Creek.
Response: The BLM manages no lands within approximately five miles of the mouth of Spencer Creek. All land in this area is private and the BLM exercises no management authority on lands near the mouth of Spencer Creek. Although "Spencer Creek" is part of the title of the Spencer Creek Treatments EA, the analysis does not propose any projects or activities in the vicinity of the mouth of Spencer Creek or immediately adjacent to the creek.

Past Timber Sales and restoration projects have significantly reduced road densities in the Spencer Creek Watershed on both BLM and adjacent private lands (see Spencer Creek EA, Kakapoo EA, and discussion in response to the first issue under "Roads and ORV/ATV Use" above).

Issue: Convert an abandoned rock quarry for use as a "rock crawling" OHV play area.

Response: This was identified as an additional treatment currently proposed on BLM lands in the planning area and considered as a reasonably foreseeable future action; however, the rock quarry development was not analyzed directly in this EA.

A potential "rock crawling" area near Clover Creek is being analyzed in the Lost EA #OR-LO14-2011-001 scheduled for completion in 2012.

NEPA

Issue: The Spencer Creek Treatments EA analyzed an inadequate range of alternatives.

Response: The KFRA ID Team did consider a wide range of alternatives in the Spencer Treatments EA including the two analyzed action alternatives and several that were not analyzed in detail (see Appendix E of the EA). Alternatives not analyzed in detail included the Citizens Action Alternative, a Regeneration Harvest Alternative and a Spotted Owl Habitat Retention Alternative. Rational for not considering those alternatives in detail is included in Appendix E of the EA.

Issue: Why was the "Citizens Action Alternative" as proposed in initial scoping comments not analyzed? The Citizens Action Alternative as proposed in initial scoping comments included:

-commercially thin plantations to increase vigor and provide wood fiber to meet intent of LRMP
-reduce fuels in project area
-thin small trees in overly dense stands
-retain remaining late-successional forests and large diameter trees (over 20 inches dbh)
-avoid regeneration harvest
-upgrade existing roads
-reduce road density

Response: The Citizen's Action Alternative was considered by KFRA's ID Team (see EA Appendix E). It was dropped from analysis in detail because most of the action items proposed in it were considered as parts of the Proposed Action. The Proposed Action did include:

-thinning of several commercial and non-commercial sized plantations
-fuels reduction through thinning, harvest and fuel treatments including whole tree yarding, lop and scatter, prescribed burning and burning of excess slash/fuels
-retention of the vast majority of large diameter trees (approximately 99% of trees designated to be harvested are 24 inches DBH and smaller)
-regeneration harvest was not part of the Proposed Action but was considered under one of the alternatives. Regeneration harvests will not be implemented as part of the Replacement Gal Timber Sale.
-upgrading roads, including road maintenance, renovation and culvert replacement are part of the Proposed Action

Two parts of the Citizens Action Alternative were partially covered in the Proposed Action and other alternatives. They include no harvest of "large trees" (trees over 20 inches DBH) and decommissioning/obliteration of additional roads.

Although not specifically covered in the EA, through the negotiated agreement with KS Wild, the no harvest of "large" trees was partially addressed. The BLM agreed not to harvest preferred tree species 22 inches DBH and larger in the NRF habitat and limit harvest of those trees in the dispersal habitat areas. "Preferred tree species" include ponderosa pine, sugar pine, white pine, Douglas-fir and incense cedar.

Regarding "decommissioning/obliteration of additional roads", analysis of the existing road system indicated that the currently existing roads in the Replacement Gal Timber Sale area are needed to allow for feasible harvest operations. As discussed above, the BLM will close any roads re-opened for the timber sale and any currently closed roads that have been opened by the public. Several miles of roads in

the analysis area have been closed or decommissioned in the previous ten to 15 years. Information about these roads and additional restoration activities in the Spencer Creek Watershed is available at the KFRA office.

Cumulative Impacts

Issue: The EA did not provide a thorough cumulative impact analysis of the proposed logging and road construction in combination with other federal logging and private logging activities and ORV use.
Response: The Spencer Creek Treatments EA tiers to the KFRA RMP/EIS. The assessment addressed direct, indirect, and cumulative effects of each action associated with the proposed timber sale and fuel treatments. The EA includes a Cumulative Impacts sections under the Environmental Consequences sections of all resources impacted by the Replacement Gal Timber Sale. The Cumulative Impacts sections analyze past, present and reasonably foreseeable future actions on BLM and adjacent private lands.

Again, no road construction is proposed in the Spencer Creek Treatments EA or the Replacement Gal Timber Sale.

Vegetation

Issue: Large diameter trees in the riparian reserves should not be logged in order to facilitate yarding.
Response: Assuming that this issue refers primarily to cable corridors, the Replacement Gal Timber Sale and Spencer Creek EA include no cable logging and no need to locate such corridors in riparian reserves or log large diameter trees in riparian reserves. Ground based yarding also will not require logging of large diameter trees in riparian reserves.

In the plantation thinning/density management units of the timber sale, Units 19-1, 19-2, and 19-3, thinning of commercial sized plantation trees will occur in the outer half of the riparian reserves. No large trees will be removed from these riparian reserves.

Issue: We urge the BLM to avoid regeneration logging in this watershed. Regeneration harvest and **g**roup selection harvest is inappropriate in this watershed.
Response: No "regeneration" harvests are planned in the Replacement Gal Timber Sale or the Spencer Treatments EA. Regeneration harvests were considered in the Spencer Creek Treatments EA but dropped from analysis because other silvicultural treatments accomplish the purpose and need and in part, because collaboration with the public has suggested that variable density thinning would be a preferred management strategy (see Appendix E of the EA).

Three small patch cuts are included in the Replacement Gal Timber Sale and were analyzed in the EA. These patch cuts could be interpreted as being similar to "group selections". Patch cuts are limited in size to five acres or less and are designed to promote maintenance/restoration of desirable tree species that require openings and higher levels of sunlight to regenerate. In the sale areas most historical stands included significant levels of sugar pine, ponderosa pine and Douglas-fir as evidenced by many existing large stumps of these species. Most of these areas are now dominated by shade tolerant second growth white fir with remnant pines and Douglas-fir (BLM stand exams and Precruise plots 2009-2011).

Not all of the trees are removed from the patch cuts. Patch cuts will retain five to ten trees per acre. In addition, preferred species (ponderosa pine, sugar pine, western white pine, Douglas-fir and incense cedar) and large diameter trees will be retained in the patch cuts.

Per the KS Wild Negotiated Agreement, no patch cuts will be implemented in NRF habitat areas. The three patch cuts implemented in the Replacement Gal Timber Sale total 13 acres and are designated in dispersal habitat areas with the purpose to reestablish shade intolerant species, particularly pines and Douglas-fir.

Issue: Logging stands down to as low as 40 square feet of basal area per acre as proposed in the EA will dramatically impact canopy closure, peak flows, wildlife, nutrient cycling, and fire hazard.

Response: The EA does consider reducing stand densities through variable density thinning in some places to as low as 40 square feet of basal area. The rational was to create some open areas to restore desirable tree species which require higher levels of sunlight. However, given concerns expressed regarding the low basal area, the range of variable density thinning prescribed in the Replacement Gal Timber Sale was modified to include a low range of 80 square feet of basal area (Replacement Gal Timber Sale Prescription and Marking Guidelines, July 12, 2010, available at the KFRA).

Issue: We do not support logging in late-successional forests, particularly heavy thinning, shelterwoods or regen harvests.
Response: No regeneration harvests are planned for the Replacement Gal Timber Sale.

The three Patch Cuts (13 acres) designated in the dispersal habitat, could be considered similar to shelterwoods but on a very small scale. In addition, as per the KSW Negotiated Agreement, in NRF habitat no patch cuts will be implemented and no preferred species 22 inches in diameter and larger will be harvested. In dispersal habitat, harvest of preferred species larger than 22 inches in diameter will be minor (see Graphs 1 and 2).

The Replacement Gal Timber Sale will primarily harvest small and mid diameter trees through a variable density management prescription as indicated in Graph 1 and Graph 2 below. Approximately 99% of the trees designated for harvest in the Replacement Gal Timber Sale are 24 inches DBH and smaller. Although some larger diameter trees are designated for harvest under uneven-aged management as directed in the KFRA RMP ROD (page 22), the sale clearly does not target larger diameter trees.

Issue: Consider diameter limits when developing thinning prescriptions. All large (20 inches dbh and larger) diameter trees should be retained.
Response: The KFRA manages most forested stands under an uneven-aged system as directed by our RMP (RMP ROD page 22). This is generally accomplished with variable density management prescriptions and some small group selections or patch cuts. In order to maintain uneven-aged forests, The Variable Density Management prescriptions implemented on the KFRA are designed to harvest mostly smaller and mid diameter trees while protecting and maintaining most of the larger trees. However, trees from all diameter classes can be harvested to maintain uneven-aged stand conditions. 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."According to stand exam and timber cruise plot data, the great majority (approximately 99%) of the trees designated for harvest under the Replacement Gal Timber Sale, are 24 inches DBH and smaller and approximately 95% of the trees designated for harvest are 20 inches DBH and smaller (see graphs 1 and 2 below). The average diameter of the timber stands within the Replacement Gal Timber Sale will increase following harvest. The BLM's intent is not to cut all or most of the large trees.

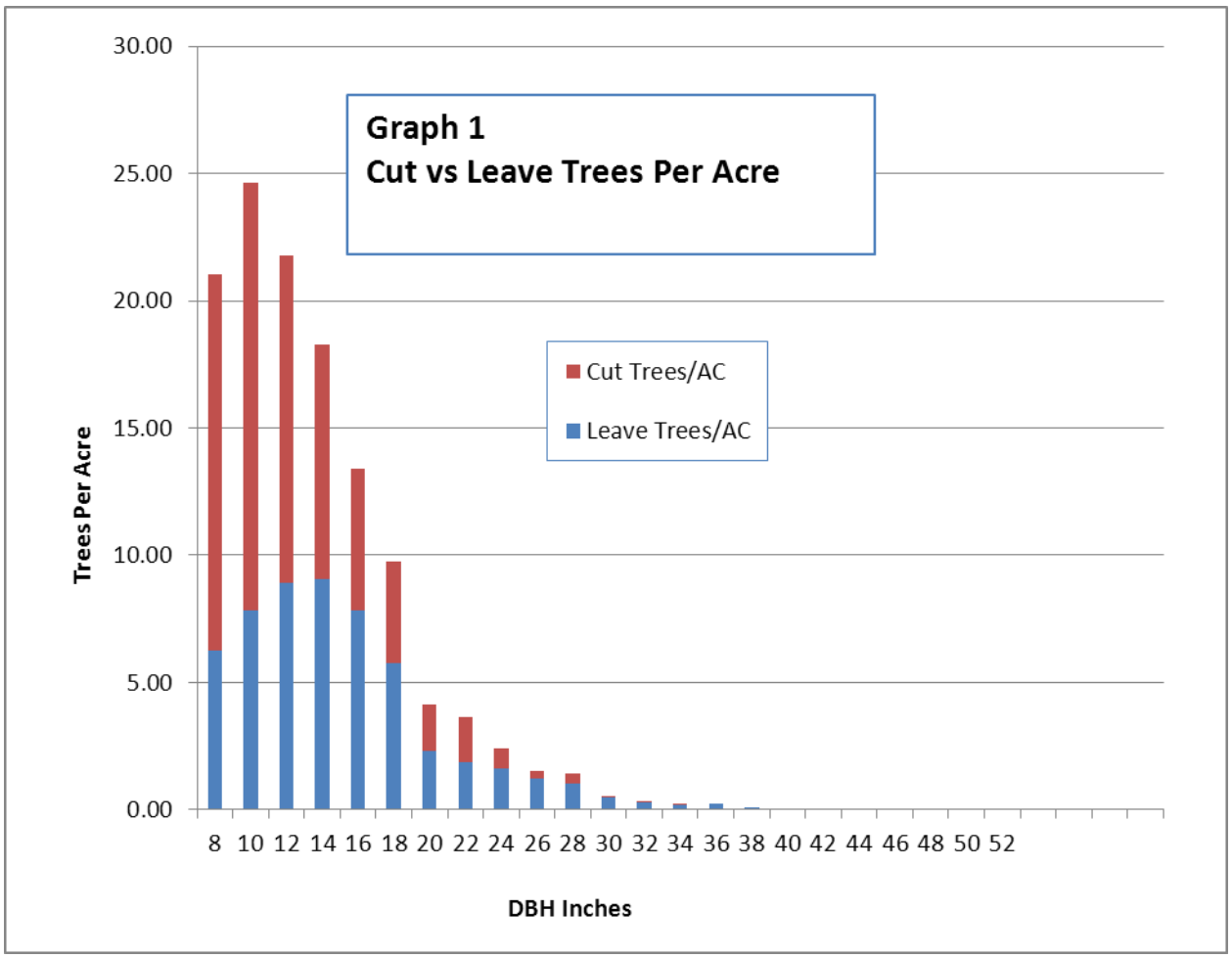
Due in part to public concerns regarding harvesting of larger trees that were expressed in various comments, efforts were made to reduce the number of larger trees designated for harvest. Silvicultural prescriptions were modified to reduce the number of large trees harvested. In regard to large trees, only trees with specific silvicultural reasons for removal were designated for harvest. Some of these reasons include removing diseased and insect infested trees and removing white fir trees that are directly competing with underrepresented and more desirable tree species including larger sugar pine, ponderosa pine and Douglas-fir.

The Final Negotiated Agreement, as noted above, restricts harvest of preferred species (sugar pine, ponderosa pine, and Douglas-fir) 22 inches and larger in all NRF habitat. The agreement also discourages harvest of preferred species 22 inches and larger in dispersal habitat.

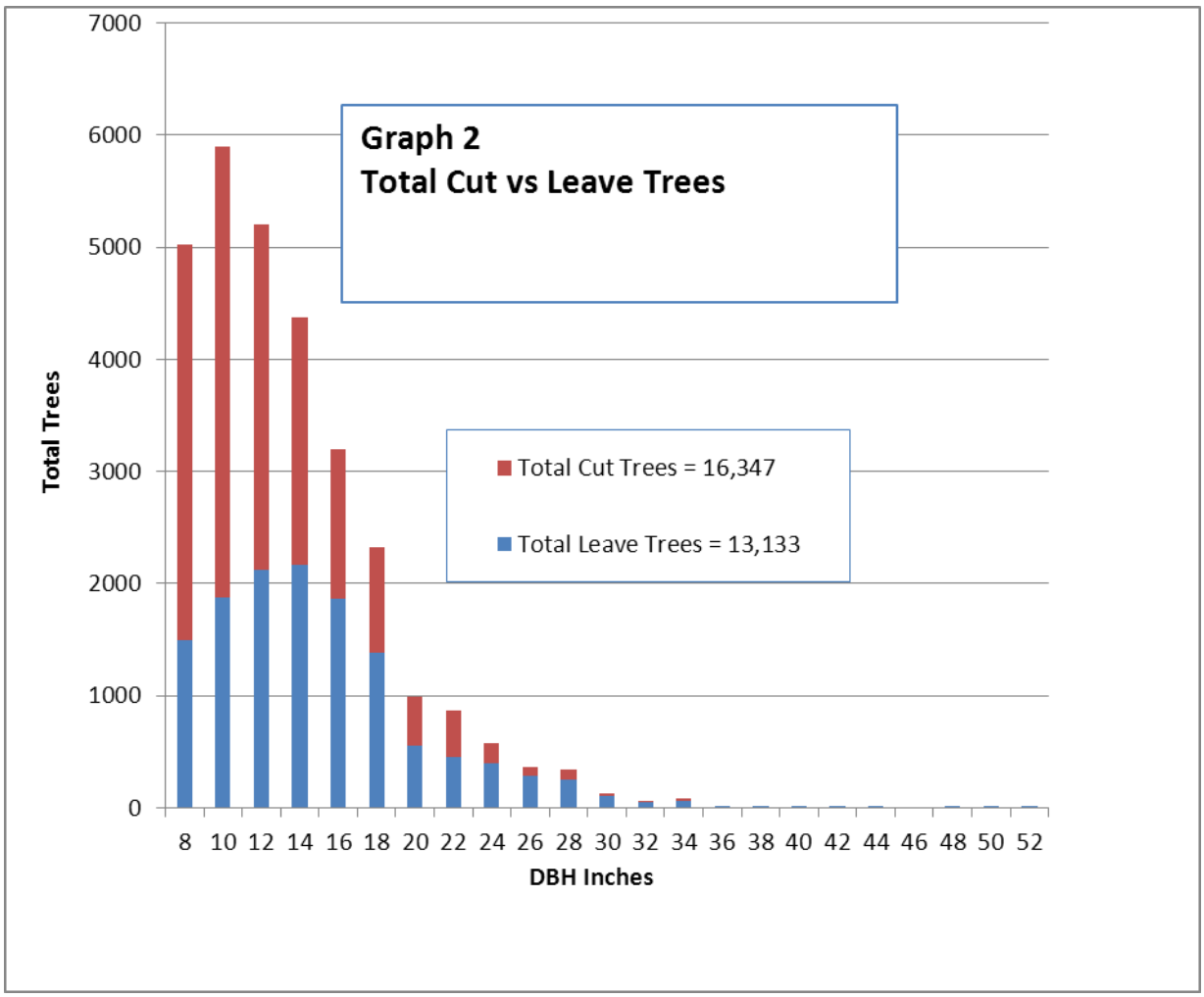
The KFRA monitors stand structure and forest conditions on an annual basis (see 2007 Annual Program Summary and Monitoring Report pages 75 to 119 and 2009 APS pages 75 to 120).

The KFRA believes that the current uneven-aged and variable density management prescriptions are meeting the multiple RMP objectives for Matrix lands and the purpose and need of the EA.

Graph 1 - Cut vs Leave Trees Per Acre (from stand exam and cruise plot data)



Graph 2 - Cut vs Leave Total Trees (from stand exam and cruise plot data)



Issue: We oppose upper diameter limits on designated (to harvest) timber and support harvesting of larger diameter trees where necessary to meet stand objectives (removal of mistletoe affected trees, etc.).
Response: No diameter limits were originally proposed for the Replacement Gal Timber Sale and are not typically included in KFRA uneven aged prescriptions. The KSW Negotiated Agreement of December 1, 2010 did include language that limits harvest of larger diameter (22.0 inches dbh and larger) preferred species (Douglas-fir, ponderosa pine, sugar pine, white pine and Incense cedar) in NSO NRF habitat. Very few large trees in the preferred species mix were originally designated for harvest. In NRF habitat those trees have been dropped from harvest. No diameter limits will be implemented for non-preferred species (white fir and Shasta Red Fir). However, large old true firs are not the target of this unevenaged prescription (see Cut and Leave Graphs 1 and 2 above).

Issue: The BLM should use patch cuts to eradicate root rot and encourage pine regeneration.

Response: The BLM is using patch cuts to encourage regeneration of shade intolerant species such as ponderosa pine and Douglas-fir. Three patch cuts totaling 13 acres will be implemented in the Replacement Gal Timber Sale.

Patch cuts are not being used in the Replacement Gal Timber Sale to eradicate root rot. Although some root rot areas exist in the sale area, the restrictions on size and purpose for patch cuts do not allow their use for root rot treatment.

Issue: We encourage marking the stand down to the basal area identified in the EA. This will have the added benefit of decreasing logging costs which will give the sales a better chance of selling in a very challenging market.
Response: The BLM implements quality control plots to assure achievement of basal areas prescribed in the silvicultural prescription and marking guidelines. Basal areas retained are purposefully designed to be variable. However, as described above, general stand thinning to basal areas of 40 will not be implemented in the Replacement Gal Timber Sale.

Issue: Avoid spread of noxious weeds
Response: Implementation of the BMPS and PDFs addressing noxious weeds included in Appendix B of the EA will be reduce or avoid spread of noxious weeds (EA page 73).

Fire and Fuels Treatment
Issue: Harvest activities increase rather than decrease fire hazard. Thinning may increase fire hazard by increasing surface fuels, changing the forest microclimate, and increasing growth of surface and ladder fuels.
Response: The EA includes several measures including whole tree yarding, lop and scatter, pile burning, slash utilization and potentially underburning to reduce slash levels and fire hazard (see EA pages 3, 8-10 and Appendix B). According to timber marking and pre-cruise data, the majority of the trees harvested will not be large, fire resistant trees. Instead, the harvest is concentrated on smaller trees with approximately 99% of the trees designated for harvest being 24 inches DBH and smaller.

Harvesting of trees can increase wildfire risks through accumulation of slash and changes in canopy cover. However, the Replacement Gal Timber Sale includes several fuels reduction treatments that when used together will minimize the generation of activity fuels and reduce fire severity and risks. The treatments include: all trees harvested will be "whole tree" yarded (the tops and attached limbs will be removed from the woods and yarded to landings), residual slash accumulations will be lopped and scattered to break up fuel concentrations and arrangements, and some slash concentrations will be piled for later chipping or burning.

One of the objectives of the proposed action is to thin fuels to reduce the potential of a stand-replacing fire while maintaining 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). The proposed Replacement Gal Timber Sale treatments are similar in design to other thinning/fuel reduction treatments implemented on the KFRA.

In addition, prescribed underburning will be implemented to further reduce fuel loads where accumulations occur. As a result of all actions proposed including harvesting and thinning, wildfire severity and risk is not expected to increase.

Issue: Establishing young plantations can increase fire hazard and reduce ability to control fires.
Response: The EA and the Replacement Gal Timber Sale do not propose establishment of plantations through regeneration harvests or large patch cuts. No large or continuous plantations will be created by the Replacement Gal Timber Sale or other actions proposed in the Spencer Creek Treatments EA. Patch cuts under these projects are limited to five acres or less in size. Nine patch cuts were originally designed into the Replacement Gal Timber Sale totaling approximately 30 acres. In response to public comments expressing concerns about patch cuts in spotted owl NRF habitat and the December 1, 2010 KSW Negotiated Agreement, all patch cuts in NRF have been dropped. The remaining three patch cuts in dispersal habitat now total approximately 13 acres.

In addition, patch cuts are not intended to establish plantations. The three patch cuts are widely dispersed and range in size from three to five acres. Patch cuts do not remove all of the trees within the patch cuts. Five to ten large trees per acre will be retained in the patch cuts and all healthy representatives of desirable tree species will be retained. Patch cuts are designed to promote regeneration of tree species like sugar pine, ponderosa pine and Douglas-fir that require more sunlight than species such as white fir and Shasta red fir. In some areas most of these desirable trees have been removed (as indicated by existing large stumps) by past management activities and the sites are now dominated by second growth white fir and Shasta red fir. Some seedlings of the more desirable species will be inter-planted with reserve trees in the patch cuts. The designed patch cuts will not resemble large continuous plantations and should not have significant effects on fuels and fire behavior.

One existing pine plantation will be thinned under the Replacement Gal Timber Sale. The plantation is approximately 50 years old, 51 acres in size and will be thinned to variable densities ranging from 80 to 160 square feet of basal area.

Issue: Slash Burning – consider using Kraft paper rather than polyethylene for slash piles.
Response: The Resource Area has experimented with the use of Kraft paper for covering slash piles. Under the desired burning conditions, when the surrounding fuels are moist, the paper covered slash pile was typically moist as well. This typically results in poor consumption and excessive production of particulate matter (PM2.5) and particles of incomplete combustion (PIC). The emissions to the atmosphere contributed by the sheet of polyethylene covering are chemically similar to the emissions from the underlying pile of slash. There is no evidence that unique classes of chemicals are found in emissions from burning polyethylene, in comparison to burning wood debris. The literature, and anecdotal evidence, clearly indicates that slash piles burn more efficiently and produce fewer PICs & PM2.5 when they are allowed to cure to a dryness that readily supports combustion. The benefit obtained from the increased combustion efficiency commensurate with dry biomass fuel favors the use of some sort of moisture barrier to aid in the drying of logging slash piles. The articles reviewed provide no evidence that burning the PE plastic sheeting along with the slash pile would cause a significant impact to air quality, however, the limited amount of information regarding the pyrolysis/combustion of PE in conjunction with woody biomass precludes an ironclad statement (from REVIEW OF POTENTIAL AIR EMISSIONS FROM BURNING POLYETHYLENE PLASTIC SHEETING WITH PILED FOREST DEBRIS FINAL REPORT, October 28, 2003; Christopher Wrobel, Tim Reinhardt, URS Corporation; Prepared for USDA Forest Service). The burning of plastic is also in conformance with the MEMORANDUM OF UNDERSTANDING Between the OREGON DEPARTMENT OF FORESTRY and the OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY (March 28, 2005).

Issue: Concerns that prescribed underburning and pile burning will impact the Klamath Basin air-shed.
Response: Underburning and pile burning will only be conducted when airshed conditions allow for dispersal of smoke away from the Klamath Basin.

Issue: Regarding post-treatment underburning in true fir stands; true fir does not hold up well to fire. Underburning true fir causes mortality, reduced vigor and degrades the economic value of the residual stand.
Response: The BLM generally agrees with this comment. Underburning will only be conducted in areas where impacts to younger true fir stands will be mitigated or avoided. Some of the impacts that will be avoided include excessive mortality and excessive damage to economic values of the residual stand. However, some mortality and damage to remaining live trees is expected and will contribute to wildlife habitat for species requiring snags and defective trees.

Yarding/Logging
Issue: Tractor yarding should be minimized as it will result in soil disturbance and impacts that will contribute to soil erosion, compaction and rutting.
Response: Impacts expected from ground based yarding operations are described in the EA on pages 40 - 50. Implementation of the BMPs and PDfs in Appendix B of the EA pertaining to soils and logging will limit or avoid impacts associated with tractor yarding.

Other forms of yarding, such as cable or helicopter were not analyzed for the following reasons: The ground is general flat and suitable for ground based equipment, most of the area has been previously logged with ground based equipment and has existing skid trails and landings, the costs of helicopter logging were not feasible and the flat terrain did not support normal cable logging systems. In addition, the current permanent road system in the analysis area is designed to implement ground based yarding.

Issue: The BLM is encouraged to drop the unit within the owl core in SW Sec. 20, T38S R.6E (Unit 20-2) as the unit would be an economic drag on the timber sale with little benefit to stand health, fuel loading or wildlife habitat.
Response: In response to public comment and further analysis, Unit 20-2 has been dropped from the Replacement Gal Timber Sale.

Soils
Issue: All of the soils in the project area have characteristics that favor the formation of a compacted layer and exhibit a severe rutting hazard (EA pages 43-44).
Response: The BMPS and PDFs included in Appendix B of the EA will be incorporated into project implementation. These measures will limit or avoid compaction and rutting. Common measures taken to reduce impacts to soils include not allowing hauling when roads are wet, not allowing equipment operations when soils conditions exceed 20% moisture content and/or implementing logging during winter months when sufficient snow is present to protect soils.

Wildlife
Issue: The BLM should not downgrade 570 acres of spotted owl nesting roosting and foraging habitat as proposed under this decision.
Response: Based on the KSW agreement and subsequent modifications to the sale, no suitable habitat (NRF) will be downgraded under the planned actions.

Issue: Critical Habitat Unit OR-37 plays a pivotal role in east-west connectivity of owl nesting habitat in the southern Cascades Mountains. OR-37 provides the single most important "stepping stone" of critical habitat linking the western/eastern Cascades and the Klamath Mountains provinces.
Response: The BLM agrees that the project area (as part of former designated critical habitat) does play a pivotal role in connectivity between both east and west cascades and the Klamath province. The treatment within the Replacement Gal timber sale area will continue to maintain both NRF and dispersal habitat and continue to provide the connectivity between the western/eastern provinces and large LSR's as designed under the northwest forest plan.

Issue: Spotted owls will continue to be negatively affected and displaced by barred owls in the project areas. All potential NSO habitat should be reserved to provide more areas for the spotted owls to seek refuge.
Response: The BLM agrees that the barred owl continues to negatively affect and displace the spotted owl. The planned action as described above will maintain NRF habitat within the project area.

Issue: The EA indicates that four NSO territories will be harmed by the proposed logging.
Response: Originally the Replacement Gal Timber Sale would have adversely affected two pair of spotted owls. The KSW Negotiated Agreement and modified prescription will maintain spotted owl NRF habitat where it occurs. Therefore the habitat within the territories described in the EA will be maintained.

Issue: The "no effect" call for NSO critical habitat contained in the EA is misleading. This habitat is no less critical than it was three years ago.
Response: The "No Effect" determination is appropriate based on the current (2008) boundaries of northern spotted owl designated critical habitat. The Replacement Gal timber sale is outside of the 2008 designated critical habitat boundary therefore there would be no impact to designated critical habitat.

Issue: The contention on page 27 of the EA that there will be no impacts to NSO designated critical habitat for the proposed project is simply false. Much of the proposed logging is within the 1992 designated CHU OR-37.
Response: See above response.

Issue: Releasing the EA prior to conducting surveys for white-headed woodpeckers means that the impacts to this sensitive species have not been disclosed to the public.
Response: The impacts to white-headed woodpeckers were considered within the EA on page 29 and 35. White-headed woodpecker (WHWO) surveys were completed in the Spencer Creek watershed in June 2010. Most of the Replacement Gal timber sale is not considered WHWO high quality habitat due to the lack of large ponderosa pine within the sale area. The surveys within the timber sale area detected no white-headed woodpeckers.

Issue: We strongly recommend consideration of an alternative that does not degrade or remove suitable or critical NSO habitat.
Response: Although the BO for the Replacement Gal and Spike Timber Sales included downgrading suitable NSO habitat, the BLM agreed in the KSW Negotiated Agreement to maintain all NRF habitat. The BLM has met that agreement. The USFW and BLM biologists have reviewed the modified sale units and other management actions and agree that no NRF will be downgraded.

Issue: The EA claims that sufficient snags and coarse woody debris will be retained in harvest units. However current RMP standards for snags are outdated. The EA does not disclose what optimal levels of snags are.
Response: No snags are designated for harvest in the Replacement Gal Timber Sale or any of the vegetation management projects. Any snags removed from the analysis area would be those designated as hazard trees or trees that were marked for harvest when they were alive and have subsequently died.

The EA is tiered to the 1995 RMP and the proposed project uses the RMP standards for snag retention. On page 69 of the EA, it states that 2.4 snags per acre will be retained and 120 linear ft of CWD. On page 17 of the EA, under "Vegetation - Affected Environment" it describes the current levels which exceed the RMP standards for both snags and CWD.

Issue: Thinning and density management captures mortality and increases vigor thereby delaying recruitment of snags.
Response: The general variable density management prescription that is implemented on approximately 329 acres of the Replacement Gal Timber Sale includes removal of 25 to 35 percent of the stand stocking (basal area) through primarily small to mid-diameter thinning. While the thinning is designed to improve vigor and resiliency of the remaining 65 to 75 percent of the stand, it will not prevent all mortality. Past timber sales in the analysis area with similar prescriptions have maintained adequate snag levels and green trees for future snag recruitment (see 2007 Annual Program Summary and Monitoring Report pages 75 to 119 and 2009 APS pages 75 to 120).

Hydrology and Aquatic Conservation Strategy

Issue: Allowing use of heavy equipment in the outer half of designated riparian reserves will inhibit attainment of the objectives of the Aquatic Conservation Strategy.
Response: The effects of riparian reserve treatments including the use of heavy equipment in the outer half of Riparian Reserves was analyzed on pages 50-52 of the EA. The analysis concluded that the application of appropriate Best Management Practices (BMPs) and Project Design Features (PDFs) listed on page 70-71 of the EA would minimize adverse impacts and therefore will not inhibit attainment of ACS strategy objectives.

Issue: The EA indicates that the high number of road/stream crossings of Spencer Creek are contributing to a downward trend of aquatic habitat. Yet both action alternatives call for significant increase in log truck traffic on natural surface roads and no reduction of road/stream crossings in the planning area.
Response: See Roads and OR/ATV use section above.

The reference to a downward trend in Spencer Creek on page 39 of the EA came from the 1995 Spencer Creek Pilot Watershed Analysis. Considering the amount of stream crossing reductions, riparian thinnings, road closures, road surfacings, culvert removals and replacements and instream improvements in the Spencer Creek Watershed over the last 15 years (see restoration summary "Watershed Restoration Treatments Implemented and Planned in the Spencer Creek Watershed" available at the KFRA Office), we believe that watershed conditions as related to stream crossings and roads as a source of fine sediment are improving and are on an upward trend in the watershed. Additionally, there are several measures included in this decision for additional improvements that will contribute further to this upward trend.

Cultural Resources

Issue: Need adequate surveys for archaeological sites and culturally significant plants in areas of treatment or proposed for designation as a recreational site. Ensure avoidance of cultural sites.
Response: The EA stated that surveys will be completed and any known sites avoided (EA-08-09 Spencer Creek Treatments Page 73). Since that time, all proposed harvest/treatment areas have been surveyed and no cultural sites were identified.

No recreational site development is proposed in the Spencer Creek Treatments EA.

Issue: Interpretive sign placement may promote or cause damage to cultural sites.
Response: In the Spencer Creek Treatments EA no interpretive sign placement was proposed in any alternative. No interpretive sign placement is included in the Replacement Gal Timber Sale.

Issue: Any recreational areas proposed may need to be surveyed for culturally sensitive plants.
Response: No new recreational areas are proposed under the Spencer Creek Treatments EA or the Replacement Gal Timber Sale.

Climate Change/Carbon Storage

Issue: The EA does not analyze climate and carbon storage impacts of the proposed action**.**

Response: The EA discusses climate change, carbon storage and air quality and the effects of the alternatives on pages 56 – 60.

Issue: The NEPA analysis must consider both the carbon and climate consequences of this proposal both cumulative and at the project level.
Response: The EA discusses climate change, carbon storage and air quality and the effects of the alternatives on pages 56 – 60.