

**Decision Memorandum on Action and for Application of:
Categorical Exclusion 516 DM2, Appendix 1, 1.12 – Hazardous Fuel Reduction
(PLAN CONFORMANCE AND CATEGORICAL EXCLUSION DETERMINATION)**

Project Name: Ben Hall Mechanical Fuels Treatments and Underburning CX Log #: OR-014-CX-04-06

Project Location: North end of Gerber Reservoir: T38S R13E sec:25-36, T38S R14E sec:29-32, T39S R13E sec:1-3, T39S R14E sec: 3-5,8-10

BLM Office: Lakeview District, Klamath Falls Resource Area **County:** Klamath County, Oregon

DESCRIPTION OF THE PROPOSED ACTION (Including Purpose and Need)

The proposed action is to pretreat areas surrounding the north end of Gerber Reservoir to remove excessive amounts of fuels and then perform a prescribed fire underburn.

The proposed pretreatment of the area includes use of handtools and machinery to reduce dense fuels and create fuel breaks necessary to assure fire containment and resource protection. This pretreatment will include hand and/or mechanical thinning and piling of brush and small trees (to be limited to less than 1,000 acres) to reduce fuel loading prior to burning in areas that have not been recently burned and areas surrounding recreational sites. Residual material will be made available for utilization where feasible. The *Klamath Falls Resource Area Record of Decision and Resource Management Plan* anticipates use of commercial forest products and proposes up to 1,000 acres per year of juniper woodland to be harvested (page 56). The exact type of utilization (firewood, logs, chips, etc.) has not been determined. Specific Project Design Features will be developed for removal of commercial forest products.

The proposed underburning will include ignition by hand (drip torch) and aerial means (PSD/helitorch).

The purposes of this action are:

- To reduce hazardous fuel levels and the risk of catastrophic wildfire.
- To reintroduce fire into areas in which fire has had a profound influence on ecosystem composition, structure and function.
- To reduce targeted fuels while preventing fire from escaping contingency boundaries or burning onto adjacent private lands.

The specific prescribed fire objectives for the Ben Hall Rx underburn are to:

- Increase herbaceous understory and vegetation in FM9 (Fuel Model 9= Long needle forest floor litter), and improve overall health and condition of the unit. Timber stands within FM9 represent approximately 4,000 acres within the outlined Maximum Manageable Area (Burn Plan Area).
- Develop a system of rotational burning to encourage diverse age classes and a network of burned and unburned areas.
- Reduce:
 - 1 Hour Fuels 70-100%
 - 10 Hour Fuels 40-100%
 - 100 Hour Fuels 20-70%
 - 1000 Hour Fuels 10-50%
 - Duff Load 20-60%

- Minimize mortality of residual trees. Underburning should result in no more than*:
 - 20% mortality in 0"-8" DBH pine trees
 - 8% mortality in 8"-20" DBH pine trees.
 - 5% mortality in 20"+ DBH pine trees.

* The BEHAVE program "predicts" the amount of mortality expected (shown above) based on fuel types, fuel loading, fuel moisture and relative humidity. However, various measures, including pretreatment by mechanical means and adjusting timing of burns, have been taken on the Klamath Falls Resource Area to effectively minimize the predicted mortality and still achieve fuel reduction objectives. Mortality varies across a burn unit, but overall, the resulting mortality on KFRA burns has been far less than what the model predicts. Similar measures will be implemented on this project as needed (see Appendix D - Tree and Brush Treatment Guidelines). Although future burns cannot be guaranteed to have as low mortality as experienced with past burns, it should be less than what BEHAVE predicts.

- Maintain an understory component of shrub species such as Bitter Brush, Sage Brush, Mountain Mahogany, etc. (see Appendix D).
- Remove ladder fuels but retain an understory component of ponderosa pine seedlings and saplings. Take measures to protect isolated, small pine trees from mechanical treatments (see Appendix D).

No treatments of any kind will be conducted until all needed resource surveys have been completed and all required mitigation measures have been identified and included in project planning.

The criteria and project design features (PDF's) as described in the fuels programmatic consultation (1-10-02-I-98) will be followed for all federally threatened and endangered species (Bald Eagle, Shortnose Sucker) within the project area (see Appendix A Wildlife Project Design Features).

PLAN CONFORMANCE

The proposed project has been reviewed and found to be in conformance with one or more of the following BLM plans, programmatic environmental analyses or policies:

Klamath Falls Resource Area Plans

Klamath Falls Resource Area Record of Decision and Resource Management Plan (1995), as amended (1999).

Klamath Falls Resource Area Fire Management EA (OR-014-94-09; 1994)

Integrated Weed Control Plan (IWCP) and Environmental Assessment (EA) OR-014-93-09

District and Regional Plans

National Fire Plan (A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan) (2001)

Klamath Interstate Habitat Management Plan (1982)

Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)

Supplement to the Northwest Area Noxious Weed Control Program FEIS and ROD (1987)

Lakeview District Fire Management Plan – Phase I (1998)

Wildland and Prescribed Fire Management Policy (1998)

Rangeland Reform '94 FEIS and ROD (1995)

Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1997)
Standards for Land Health for Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1998)
Interior Columbia Basin Strategy (2003)
*Lost River (*Deltistes luxatus*) and Shortnose (*Chasmistes brevirostris*) Sucker Recovery Plan. U.S. Fish and Wildlife Service (1993)*

LIMITATIONS

There are a number of limitations on the use this hazardous fuels reduction CX. The project:

- a) shall not exceed 1,000 acres for mechanical methods (crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing) and shall not exceed 4,500 acres for prescribed fire,
- b) shall be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III outside the wildland-urban interface.
- c) shall be identified through a collaborative framework as described in *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan*,
- d) shall be conducted in accordance with BLM and DOI procedures and applicable land/resource management plans (refer to Plan Conformance section above),
- e) shall not be conducted in wilderness areas or where it would impair the suitability of WSA’s for preservation as wilderness,
- f) shall not include the use of herbicides or pesticides,
- g) shall not involve the construction of new permanent roads or other new permanent infrastructure,
- h) may include the sale of vegetative materials if the primary purpose is hazardous fuels reduction.

COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

The proposed action is categorically excluded from further analysis or documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM2, Appendix 1, 1.12 if it does not meet any of the following Exceptions (listed in 516 DM 2, Appendix 2; IM No. OR-2002-130).

Will the proposed action meet the following Exceptions?

<u>Exception</u>	<u>Yes</u> <u>No</u>
1. Have significant adverse effects on public health or safety?	() (X)
2. Have adverse effects on such unique geographic characteristics or features, or on special designation areas such as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; sole or principal drinking water aquifers; prime farmlands; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks. This also includes significant caves, ACECs, National Monuments, WSAs, RNAs.	() (X)
3. Have highly controversial environmental effects (40 CFR 1508.14)?	() (X)
4. Have highly uncertain and potentially significant environmental effects or unique or unknown environmental risks?	() (X)
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	() (X)
6. Be directly related to other actions with individually insignificant, but significant cumulative environmental effects? This includes connected actions on private lands (40 CFR 1508.7 and 1508.25(a)).	() (X)

7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places? This includes Native American religious or cultural sites, archaeological sites, or historic properties.	() (X)
8. Have adverse effects on species listed or proposed to be listed as Federally Endangered or Threatened Species, or have adverse effects on designated critical habitat for these species? This includes impacts on BLM-designated sensitive species or their habitat. When a Federally listed species or its habitat is encountered, a Biological Evaluation (BE) shall document the effect on the species. The responsible official may proceed with the proposed action without preparing a NEPA document when the BE demonstrates either 1) a “no effect” determination or 2) a “may effect, not likely to adversely effect” determination.	() (X)
9. Fail to comply with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act (water resource development projects only)?	() (X)
10. Violate a Federal, State, Local, or Tribal law, regulation or policy imposed for the protection of the environment, where non-Federal requirements are consistent with Federal requirements?	() (X)
11. Involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E)) not already decided in an approved land use plan?	() (X)
12. Have a disproportionate significant adverse impacts on low income or minority populations; Executive Order 12898 (Environmental Justice)?	() (X)
13. Restrict access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites; Executive Order 13007 (Indian Sacred Sites)?	() (X)
14. Have significant adverse effect on Indian Trust Resources?	() (X)
15. Contribute to the introduction, existence, or spread of: Federally listed noxious weeds (Federal Noxious Weed Control Act); or invasive non-native species; Executive Order 13112 (Invasive Species)?	() (X)
16. Have a direct or indirect adverse impact on energy development, production, supply, and/or distribution; Executive Order 13212 (Actions to Expedite Energy-Related Projects)?	() (X)

The proposed action would not create adverse environmental effects or meet any of the above exceptions.

DOCUMENTATION OF RECOMMENDED MITIGATION

Note: although none of the conditions for the above exceptions are met, the resources discussed are potentially affected. Mitigation measures below are applied to prevent the adverse conditions discussed in the exceptions:

Exception No.	Can Be Mitigated	Cannot Be Mitigated	Mitigation Measures
8	Yes		See Wildlife PDFs, Appendix A.
8	Yes		Although not a T, E or S species, the known <i>Silene nuda</i> sites will be avoided (see Appendix B).
15	Yes		See Weed Mitigation Measures, Appendix C.

SURVEYS AND CONSULTATION

Surveys and/or consultation may be needed for special status plants and animals, for cultural resources, and other resources as necessary: (Initial and Date appropriate fields)

Surveys:	1) are completed	2) will be completed	3) are not needed
SS Plants	AO 9/30/04	_____	_____
SS Animals	SM 9/29/04	_____	_____
Cultural Resources	_____	TC 9/29/04	_____
Other Surveys	_____	_____	_____
SS Animal Consultation	SM 9/29/04	_____	_____
Botanical Consultation	_____	_____	AO 9/30/04
Cultural Consultation	_____	TC 9/29/04	_____

(SS = Special Status)

Remarks:

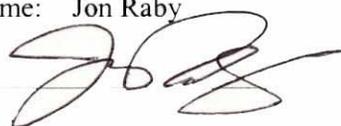
PERSONS AND AGENCIES CONSULTED

US Fish and Wildlife Service
 Klamath Tribes
 Oregon Department of Forestry
 US Forest Service

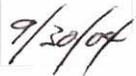
SUMMARY OF FINDINGS and CX DETERMINATION

The proposed action would not create adverse environmental impacts or require the preparation of an environmental assessment (EA) or environmental impact statement (EIS). The proposed action has been reviewed against the criteria for an Exception to a categorical exclusion (listed above) as identified in 516 DM 2, Appendix 2, and does not meet any Exception. The application of this categorical exclusion is appropriate, as there are no extra ordinary circumstances potentially having effects that may significantly affect the environment. The proposed action is, therefore, categorically excluded from additional NEPA documentation.

Prepared By: Rick Mowery, Fuels Technician
 Reviewed By: Klamath Falls Resource Area Interdisciplinary Team

Approved By: Name: Jon Raby
 (Signature) 

Title:
 Resource Area Manager

Date:


IMPLEMENTATION DATE

This project is expected to be implemented Fall, 2007.

ADMINISTRATIVE REVIEW OPPORTUNITY

Appeal

Any party that is adversely affected and determined to be a party to the case, may appeal the implementation of the proposed action to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. A notice of appeal must be filed in this office (at the address below) within 30 days of receipt of this decision. The appellant has the burden of showing that the decision is in error.

An appellant may also file a petition for a stay (suspension) of this decision during the time that the appeal is being reviewed by the Board pursuant to Part 4, Subpart B, 43 CFR Part 4.21. The petition for a stay must accompany the notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must be submitted to each party named in this decision, to the Interior Board of Land Appeals, and the Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. The appellant has the burden of proof of demonstrating that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of decision pending appeal shall show sufficient justification based on the following standards:

- a) The relative harm to the parties if the stay is granted or denied,
- b) The likelihood of the appellant's success on the merits,
- c) The likelihood of immediate and irreparable harm if the stay is not granted, and
- d) Whether the public interest favors granting the stay.

CONTACT PERSON

For additional information concerning this project, contact:

Joe Foran, Klamath Falls Resource Area, 2795 Anderson Avenue, Building 25, Klamath Falls, Oregon 97603-7891 or telephone: 541-883-6916.

Appendix A - Wildlife Project Design Features (PDF's)

From the Fuels Programmatic Consultation

Steps that will trigger re-initiation or further discussions with USFWS:

- If an eagle nest is occupied, then spring burning will not be allowed until site-specific discussions/consultations are completed with FWS.
- If a spotted owl is nesting in an area, then spring burning will not be allowed until site-specific discussions/consultations are completed with FWS on this matter.
- Construction of fire lines directly adjacent to or crossing a stream occupied by fish, especially suckers.
- Emergency situations that go outside planned operations (e.g. escaped fire in eagle or owl areas, retardant spill near riparian zones, newly discovered nest sites near or in burn units).
- If the level or rate of habitat modification or disturbance exceeds any of the levels described in the BA and associated BO.
- Projects that do not meet the criteria discussed in the BA or are beyond the scope of the PDF's.

For fuel treatment units adjacent to or containing Bald Eagle nest sites:

- No fuel treatments will be planned within the core area (as identified by the BLM wildlife biologist) of a bald eagle nest site during the nest season. Nesting season is considered January 1st – August 15th. The wildlife biologist may adjust these dates if the young have fledged prior to Aug. 15th (usually the fledging date plus 2 weeks). The core area will consist of the withdrawn area around the nest and the disturbance area around the nest. Generally the disturbance area is considered ¼-mile or ½ mile line-of sight. This distance may vary depending on topography and site-specific information.
- Smoke management will be planned in such a way to avoid adverse effects of residual smoke on nest sites adjacent to burn units
- A BLM wildlife biologist will be consulted about eagle use of the area before the fuel treatments are initiated to ensure the eagle situation is closely monitored.
- A biologist/designee will monitor the nest area during the burns to ensure that objectives and PDF's are met (smoke management, fire intensity, etc).
- In areas where prescribed fire activities are being planned, remove the brush, ladder fuels and large down woody debris within the dripline (approximately 30+ ft.) of the eagle nest trees and potential or identified perch/roost trees to reduce ladder fuel. The brush would be piled away from the nest and burned.
- So fire activity will be reduced immediately adjacent to the nest trees during the broadcast burning of the area, personnel will be required to complete one or more of the following:
 - a) Pull back of 10 and 100 hour fuels 30' from the base of the nest trees/ perch trees
 - b) Construct fire line around the nest trees/perch trees
 - c) Use foam, water, or other retardants to protect the nest tree (foam would not be allowed if the nest tree is in a riparian zone).
 - d) Ladder fuels would be removed from the dripline (30ft.)
- Fuel treatments can proceed in the core area, if no nesting has occurred by May 6 (last date documented for initiation of incubation, Frank Isaacs, personal communication)
- If the nest is occupied or spring burning is preferred because of excess fuel loading or to meet other resource objectives, then spring burning will not be allowed until site-specific discussions/consultations are completed with USFWS on this matter.
- Aircraft used during prescribed fire operations would maintain a buffer >1/2 mile distance from the nest during the nesting season (this distance may vary if topographical features allow). No buffer would be necessary outside the nesting season.

- In instances when verifying nesting status was necessary prior to activities taking place, survey protocols used by Oregon Eagle Foundation annual bald eagle survey flights would be followed.

For units adjacent to or containing Bald eagle roost sites:

- If no birds are sited in the area, fuel treatments may be initiated and continue as long as the conditions are favorable. If bald eagles are using the area for roosting, the units should only be entered between 9:00 AM and 3:00 PM.
- Smoke management will be planned in such a way as to avoid adverse effects of residual smoke on occupied roost sites adjacent to burn units.
- A BLM wildlife biologist will monitor eagle use in the area before the fuel treatments are initiated to ensure that the eagle situation is closely monitored.
- In areas where prescribed fire activities are being planned remove the brush, small trees, and large down woody debris within the dripline (approximately 30+ ft.) of the potential (>20") or identified perch/roost trees to reduce ladder fuel. The brush would be piled away from the nest and burned.

For units adjacent to or containing fish habitats or riparian areas:

- Fuel treatment objectives within the RR's are to protect the overhead canopy from catastrophic fire and increase the productive vigor of trees and plants within the riparian areas. At the same time retain and protect the CWD and overhead cover important to stream function and aquatic habitats. The 50 foot boundary that's used for various PDF's is not necessarily biologically based but rather used to set a minimum standard that both protects aquatic habitat and simplifies designing treatment units. In areas where a 50-foot boundary does not make practical sense, and some other boundary is more appropriate, there should be an opportunity on a case-by-case basis to assess the effect of the new boundary on aquatic species and habitats.

Mechanical fuels treatments in riparian reserves:

- Treatments methods that would disturb the least amount of soil (yarding over snow or frozen ground, limiting activities to the dry season, pulling line to each tree, and minimizing skid trails) would be used in the Riparian Reserves. No ripping, piling, or mechanical site preparation (except for designated skid trails crossings, roads, or yarding corridors) would occur in RR's.
- To protect the thermal regime adjacent to streams and to maintain stream bank stability a no-mechanical-entry spacing for treatments would occur from the natural topographic break to the stream. In areas where a topographic break is not evident the following guidelines would be implemented: On intermittent streams with slopes less than 10 percent a 50 foot no mechanical entry buffer would be established on each side of the stream.
- On slopes greater than 10 percent an 80 foot no mechanical entry buffer would be established.
- On perennial and/or fish bearing streams with less than 10 percent slopes a minimum 100 feet no mechanical entry buffer would be established.
- On perennial and/or fish bearing streams with slopes greater than 10 percent a no mechanical entry buffer 160 foot would be established.
- Hand treatments would be recommended within the no-mechanical-entry zones in order to meet fuel management objectives.

Ignitions within the riparian reserves:

- In general terms, ignition of broadcast fires should not occur within a minimum of 50 feet from the stream channel within the riparian reserves. The specific distance for lighting fires within the RR will depend on topography, habitat, ignition methods, and fuel moisture.
- Ignition line location nearest the stream should be based on topography and ignition methods and should be sufficient to protect water quality, CWD, and stream overhead cover. If it's wet don't pour fuel on it. If CWD directly touches the high water mark of the stream, or the CWD may be affected by high flows, don't ignite it. If there is a thick vegetation cover that extends out from the stream to the line of ignition then move the line of ignition into the forest stand, away from the stream.
- Mobile ignition methods, i.e. ping-pong ball ignition, recommend an increased ignition distance from the stream of at least 50 feet on slopes of 35 percent or less. On slope greater than 35 percent increase ignition distance to 100 feet.
- Recommend the ignition line location near large open meadows, associated with the stream channels, be located at the toe of the slope above the meadow elevation as much as possible in order to protect meadow vegetation.
- When igniting fuels on the lower end of the window of moisture content, increased ignition spacing from stream would be recommended to further protect CWD and overhead cover components.

Roads and temporary fire trail access in riparian reserves:

- No new roads will be constructed within the RR unless they replace an existing road that is causing more resource damage. If possible use new technology construction methods for building temporary roads into treatment units (including but not limited to wood chip constructed roads)
- Use of existing roads and landings within the RR will be reviewed and approved by the resource advisor.
- Minimal or no grading of the existing roads will be done to maintain the existing ground cover and vegetation and to decrease sediment movement.

Chemical fire retardants and fueling in riparian reserves:

- No use of chemical retardants would occur within the full width of the Riparian Zone (per KFRA RMP).
- In cases of escaped or wildfire control soap based retardants may be applied to within 50 feet of a stream that contains water.
- No refueling within the riparian reserves, unless approved by a resource advisor.
- No staging areas will occur in the riparian reserves, unless approved by a wildlife biologist.

Streamside pumping sites:

- Pumping on small streams should not reduce the downstream flow of the stream by more than half the flow.
- If possible avoid the construction of temporary pump chances, when necessary use temporary plastic dams to create chances and remove these dams when not actively pumping.
- All pumping located on fish bearing streams must have a screen over the intake to avoid entrainment of small fish.
- Recommend that pump intake be suspended near the thalweg (deepest/highest quantity of flow) of the stream. Avoid placing pump intakes on the substrate or edges of the stream channel.

Post-fuels treatments for access roads and temporary fire trails:

- Installing drainage dips, or water bars, in accordance with RMP BMP's to reduce surface run-off is recommended.
- A layer of duff (average of ½ inch after final burn) will be retained to protect soil from erosion during the wet season.
- Mulch and seeding or other methods of soil stabilization are to be applied to any exposed soil surfaces prior to the wet season to reduce surface erosion.
- Surfacing roads in accordance with RMP BMP's (*Roads C-1-8*) is recommended for all naturally surfaced roads not proposed for decommissioning or closure.
- Design blockages (close or decommission) upon completion of treatments to minimize non-authorized use of roads and trails within treatment areas.
- Recommend placement of residual slash on trails upon completion of mechanical treatments.

Additional Wildlife Impact Mitigation (per Wildlife Biologist Matt Broyles)

Osprey nests

There are several known Osprey nests within the project area.

- These nest trees and associated nearby roost snags should be protected from fire.
- Fuels at the base of nest trees and at the base of any snags within 300' of nest trees should be pulled back or otherwise treated to reduce the potential for ignition.
- Burning crews should be briefed on the locations and importance of these nest trees and associated snags on the day these areas are planned for burning.
- Any as yet undetected Osprey or Bald Eagle nests should be protected in the same manner as listed above.

Historical Sage Grouse leks

There are several historical Sage Grouse leks within the project area. While the sagebrush fields within the project area are not targeted for ignition, they are located within the MMA and as such may be subject to fire spread from targeted areas.

- Current guidelines for maintenance of Sage Grouse habitat require retention of no less than 80% of current habitat (i.e. loss of no more than 20% of sage cover)
- While some impact on sage cover is acceptable under this guideline, burning crews and holding forces should be briefed on these guidelines and location of these leks before ignition occurs on project area.

Appendix B – Bureau Tracking Species Mitigation Measures

One population of fringed campion (*Silene nuda* ssp. *insectivore*), a special status plant species, occurs adjacent to Ben Hall Creek in T. 38 S., R. 13 E., Section 34 SE/SE. This population (see Map 2) will be flagged prior to project implementation and avoided during mechanical treatment activities.

Appendix C - Weed Mitigation Measures

- All vehicles and equipment will be cleaned off prior to operating on BLM lands. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts is required and may be accomplished with a pressure hose.
- Noxious weeds in the immediate area of operations shall be mowed to ground level prior to the start of project activities.
- All equipment and vehicles operating off of main roads shall be cleaned off prior to leaving the job site when the job site includes noxious weed populations. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts is required and may be accomplished with a pressure hose.

Appendix D - Tree and Brush Treatment Guidelines

These treatment guidelines are designed to reduce “ladder fuels” within mixed brush and ponderosa pine stands. They will only need to be applied in areas where it is deemed necessary to reduce ponderosa pine mortality. Some or all of these steps may not be necessary in areas that have low duff and brush accumulations.

Prunus spp. (mostly cherry and Klamath plum): Unrestricted mowing inside treatment units.

Birch leaf mahogany: Unrestricted mowing inside treatment units

Ceanothus: Unrestricted mowing inside treatment units

Manzanita: Unrestricted mowing inside treatment units

Rabbit brush: Unrestricted mowing inside treatment units

Juniper reproduction: Unrestricted mowing inside treatment units

Old bitterbrush (generally more than 2.5 feet high): Unrestricted mowing inside treatment units. (In most units bitterbrush will not need to be mowed except where it could negatively impact ponderosa pines should it ignite.) Would be mowed completely under the dripline of large ponderosa pine; some green branches will be left in open areas.

Young bitterbrush (generally less than 2.5 feet high): Mow only within two crown widths of pine trees greater than 8” DBH.

Curl leaf mahogany: Mow only within two crown widths of pines greater than 8” DBH.

Big sage: Do not mow.

Aspen: Do not mow.

Willow: Do not mow.

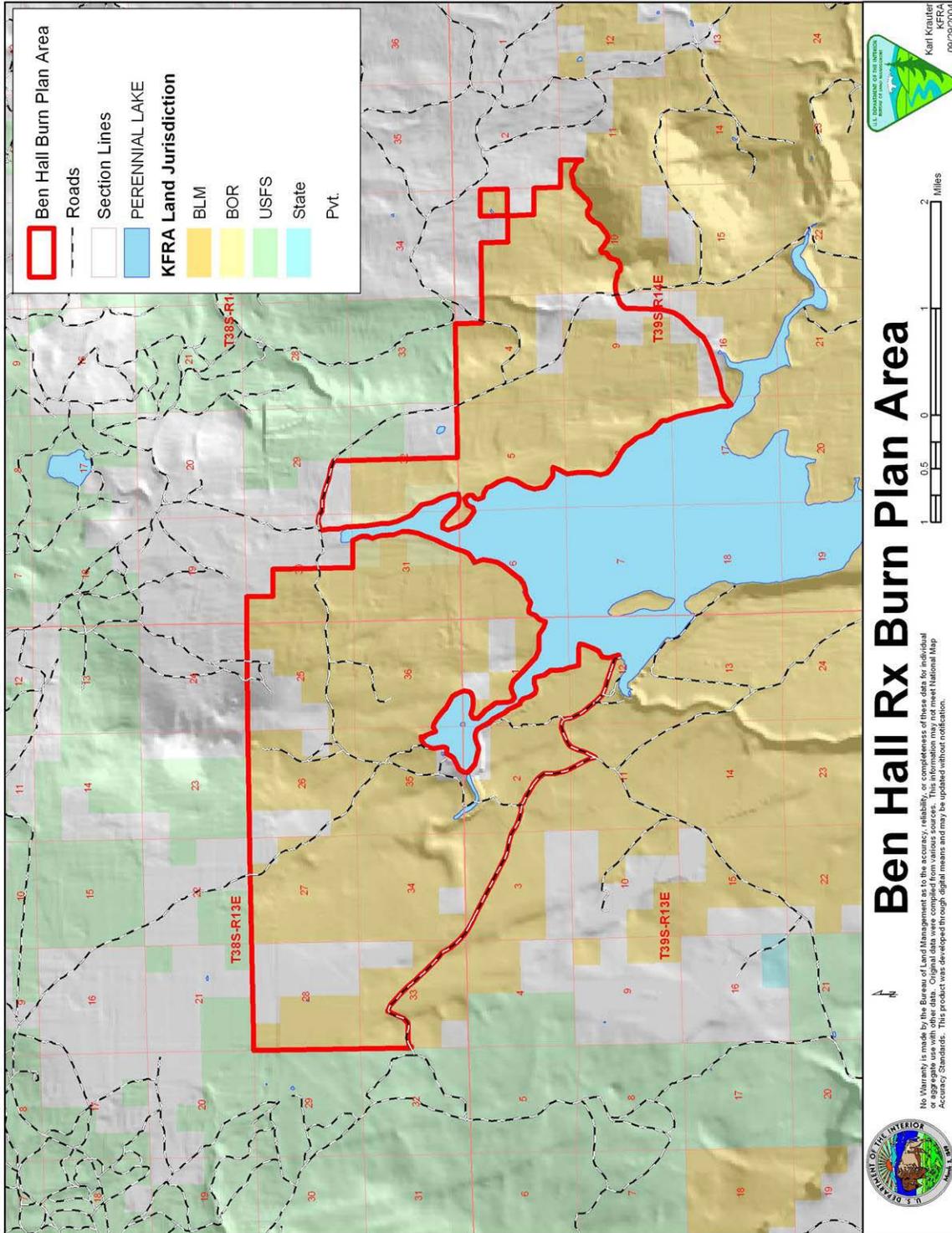
Pine reproduction:

- Maximum cut tree is 8” dbh.
- Thin clumps to 12’ X 12’ to 16’ X 16’ spacing.
- Leave larger, healthier, straightest trees.
- Mow brush around single, isolated, small pine trees with above guidelines.
- Cut/mow all pine reproduction within 2 tree heights of any aspen trees/reproduction.

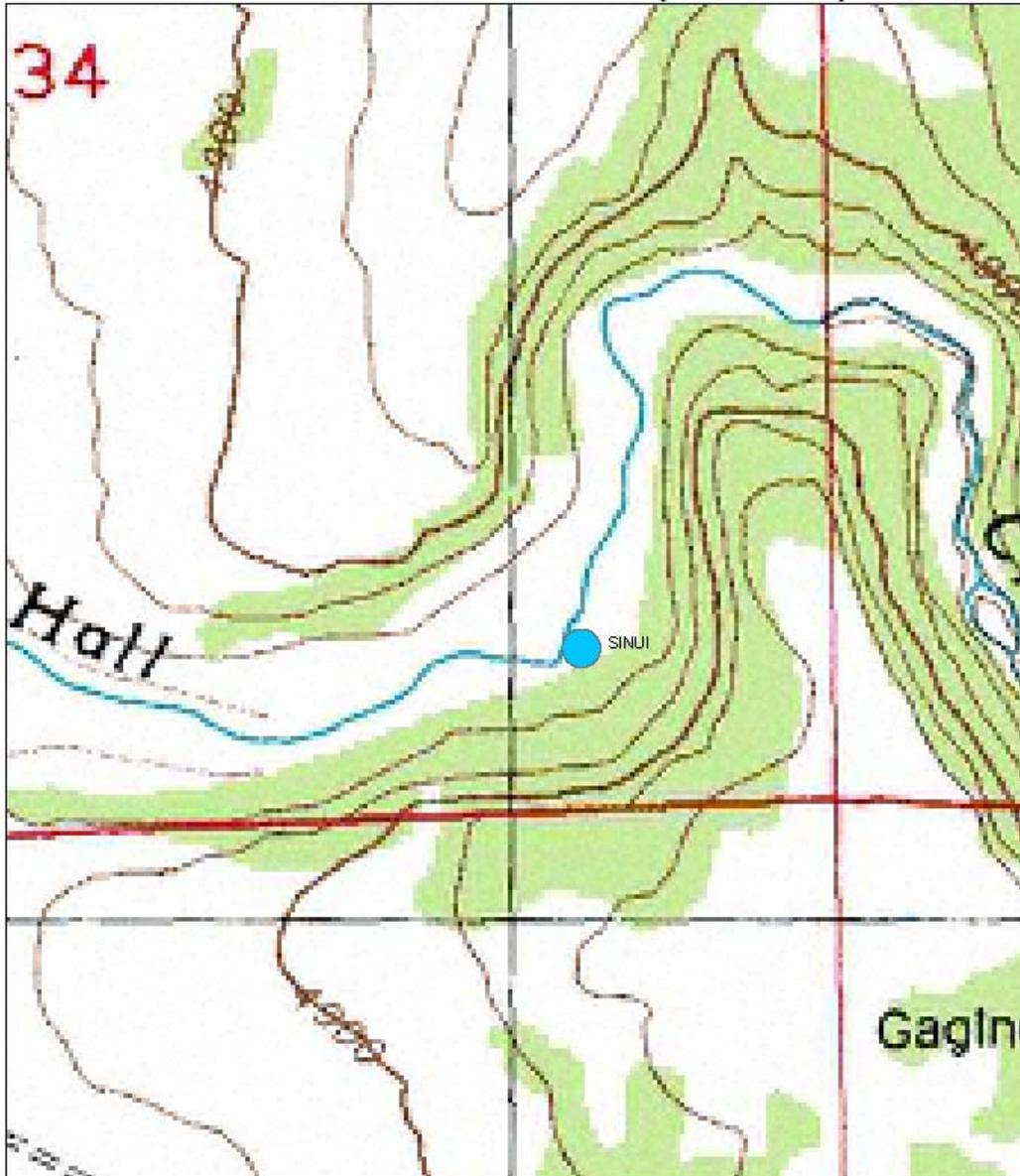
Pine overstory: For all trees 24” dbh or greater:

- The duff collar will be raked backed beyond the dripline if the needle accumulation is too deep.
- Understory ladder fuels will be cut or mowed following the above guidelines.

Map 1 – Project Location Map



Fringed Campion (*Silene nuda* ssp. *insectivora*) Site on Ben Hall Creek (SINUI)



Klamath Falls Resource Area NEPA Document Routing Slip for Internal Review

Project Name: Ben Hall Rx Fire & Mechanical Treatments (Rick Mowery x 4192)
 Date Initiated: 2-17-04 CX-04-06

Resource or Staff Responsible	Review Priority	Preliminary Review Date/Initials	Comments Attached/Incorporated	Final Review Date/Initials
Manager: Jon Raby	Last			JR 1/23/04
Branch Chief: Barbara Ditman	Second to Last 14			JD 4-30-04
Branch Chief: Larry Frazier	Second to Last			
Branch Chief: Rod Johnson	Second to Last			
Planner/EC: Don Hoffheins, Kathy Lindsey	Third from Last 10	3/3/04 DEX		4/27/04 DEX 4/30/04 DEX
Range: Bill Lindsey, Dana Eckard	9	3/2/04 D2E	None	4/9/04 D2E
Wild Horses: Tonya Pinckney				
Fire/Air Quality: Joe Foran	8	JWF 3/3/04		JWF 4/16/04
Silviculture: Bill Johnson, Gabi Sommerauer	12			BS 9/27/04
Timber: Mike Bechdolt	11			MB 9/27/04
Botany/ACEC/Noxious Weeds: Lou Whiteaker	7	JW 3/2/04	Surveys done. Both noxious weed & special status plant sites in area	JW 4/9/04
Soils:	6	TC 3/17	NONE	
Cultural: Tim Canaday	5	TC 3/2/04	Surveys required	TC 4/29/04
Minerals/HazMat: Tom Cottingham				
Lands/Realty: Linda Younger				
Recreation/Visual/Wilderness: Scott Senter	4	VSS 3/2/04	VSS Attached note	VSS 4/14/04
Hydrology/Riparian: Mike Turaski, Andy Hamilton	3	MRT 2/25/04	IN TEXT	MRT 4/20/04
Wildlife/T&E: Steve Hayner	2	WDB	Attached	WDB 4/12/04
Fisheries/T&E: Scott Snedaker	1 st	SS	See Attachments	SS 4/29/04
W/S Rivers: Grant Weidenbach				
Engineering: Brian McCarty				
Survey/Manage: Molly Juillerat				
Clearances/Surveys	Needed	Done/Attached	*This document will not sit on your desk for more than 8 hours. Please check on calendar to make sure that the next person will be available to review the document.	
Cultural	TC 3/2/04			
Botanical		JW 3/2/04		
T&E, BA & or Consultation		SS 4/28/04		
R-O-W Permits				

****Some resource areas may not apply for all projects. If so, just mark "N/A" in "Review Priority" column.**

Approximately 1,247 acres need to be surveyed for cultural resources prior to project implementation.

FURLS PROGRAMMATIC WDB