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Department of
Agriculture

Forest
Service

Pacific
Northwest
Region

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Decision Notice and Finding of No Significant Impact

French Bug Timber Sale

Detroit Ranger District, Willamette National Forest,
Marion County, Oregon
Legal Location: T9S, R5E; T9S R6E; T10S R5E; and T10S R6E; W.M.

Responsible Official: Paul Matter, District Ranger
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Background and Decision

Background

The French Bug Timber Sale Environmental Assessment documents the environmental effects associated with a proposal to commercially thin and create gap cuts on about 1276 acres of previously harvested stands and regenerated stands on the Detroit Ranger District, near the town of Detroit, Oregon. The proposed harvest units consist of lands on both sides of French Creek road, lands south of Breitenbush Road, and areas near the confluence of Humbug Creek and Breitenbush River (see figures 1 and 2).

The purpose of the proposed action is to 1) help contribute timber products to meet Willamette National Forest long-term sustainable harvest levels and 2) use silvicultural methods to reduce tree density in order to enhance tree growth and promote structural and species diversity in stem exclusion stands.

Contribute timber products to meet Willamette National Forest long term sustainable harvest levels.

The 1990 Willamette National Forest Land and Resource Management Plan (Forest Plan) and the amendment by the 1994 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (Northwest Forest Plan), provide broad management direction for this area. Section 1.6 provides further information on these documents.

The project area is located mostly in general forest and scenic land management allocations of the Willamette National Forest Plan overlaid by matrix and riparian reserves of the Northwest Forest Plan. There is a need in the Forest Plan allocations to manage to provide multiple-use benefits which includes an expected output of timber products. Timber would be provided at the optimum level to meet the long term sustained-yield capacity based on the growth potential of the land which is compatible with multiple use objectives (LRMP IV-227; LRMP standard and guidelines FW-176, FW-177).

The Northwest Forest Plan recognizes that “the need for forest products from forest ecosystems is the need for a sustainable supply of timber and other forest products that will help maintain the stability of local and regional economies, and contribute valuable resources to the national economy, on a predictable and long-term basis” (Northwest Forest Plan, p. 26).

Use silvicultural methods to reduce tree density in order to enhance tree growth and promote structural and species diversity in stem exclusion stands.

The 34-76 year old managed stands proposed for treatment (both in the riparian reserves and upland areas) are densely stocked and dominated by Douglas-fir trees of the same age class. Canopies in these stands are generally closed, annual growth is beginning to slow as competition increases, and crowns are receding. Most stands lack natural canopy gaps and associated understory diversity. Previous clearcutting, along with the exclusion of fire, has created young forests in this planning area that lack the structural diversity

otherwise present in stands of a moderate severity fire regime. Thinning and creating small openings (gaps) would (1) increase the amount of light and nutrients reaching the remaining trees and increase their growth rates and (2) increase the amount of light and nutrient that reach the forest floor allowing understory development.

The Environmental Assessment documents the analysis of two action alternatives, along with the No Action Alternative to meet these needs. I have reviewed the EA, the related documents, and public input. My decision is based upon that review and I have found the analysis to be in full compliance with direction from the amended Forest Plan.

Documents in the project record are available for public review at the Detroit Ranger Station on Highway 22 in Detroit, Oregon.

Decision

I have decided to select Alternative 3 to implement timber harvest on approximately 1276 acres of densely stocked, previously managed stands within the French Bug project area. This decision is based on my review of the analysis presented in the French Bug Timber Sale Environmental Assessment and the comments received from the public during the 30-day comment period.

This alternative will include commercial thinning on roughly 1264 acres, ½-acre gaps on 21 acres (15 acres within the thinning stands and 6 acres within the gap only stands), and larger gaps (1-3 acres) on 30 acres (22 acres within the thinning stands and 6 acres within the gap only stands). Total volume of commercial timber harvested is expected to be 15.1 million board feet (MMBF).

The ½ acre gaps will be planted with western red cedar; the 1-3 acre gaps will be replanted with a mix of Douglas-fir, western red cedar, and western white pine.

The timber sales from this proposal are likely to occur over a two-year period, beginning in 2011.

Construction, reconstruction, or modification of landings for helicopters, skylines, and ground-based yarding systems will occur.

Harvest systems will include 179 acres of ground based systems, 738 acres of skyline yarding, and 359 acres of helicopter yarding.

This action includes the construction of .78 miles of temporary road. Upon completion of sale activities, the new temporary roads will be decommissioned by scarification, seeding, and maintenance of natural drainage patterns. Also, .48 miles of past logging spur road locations from the initial logging entry will be utilized as temporary roads for this project. (Spurs will be closed after use.)

Alternative 3 will prescribe road maintenance activities on 36 miles of existing forest roads needed for timber haul. Road maintenance activities will include cutting hardwood trees along roads, felling hazard trees for the life of the road, clearing and grubbing, surface blading, replacing drainage structures, reshaping ditches, and placement of aggregate surfacing.

To allow better access to harvest areas and to reduce adverse impacts to resources, 4.2 miles of existing forest roads will be reconstructed. Reconstruction activities will include sections of asphalt patching, subgrade repair, culvert replacement, erosion repair, new culvert installation, brushing, slump repair, clearing and grubbing, road widening, and crushed rock placement.

In addition, Alternative 3 includes .12 miles of road realignment (086 Road).

To help protect big game and winter range, Alternative 3 includes 6.3 miles of year round and winter-only closures. Winter closures would be placed on portions of the following roads 2225-503, 2225-450, 2225-11, and 4600-90. This would result in 4.3 miles of winter closures. Year round closures would be placed on portions of the following roads 2225-455, 4600-093, 4696-699, 4696-720, and 4696-086. This would result in 2.0 miles of year-round closures.

Alternative 3 includes 650 acres of fuels treatments including the following activities: grapple piling and burning in the units, roadside grapple piling, burning landings and underburning.

Slash, slash piles and landing debris created through operations along mainline roads and dispersed sites will be cleaned up to improve visual quality along roads that are used for recreation traffic.

Post-sale activities include:

- gap planting and seeding;
- visual cleanup;
- noxious weed survey and treatment;
- precommercial thinning;
- gate placement;
- subsoiling;
- dispersed site restoration and management;
- placement of large wood in Humbug and East Humbug Creeks; and
- aerial fertilization.

A complete list of post-sale activities can be found in Appendix E of the EA.

Mitigation Measures

This decision implements the following mitigation measures described in the EA on pp. 18-20:

Table 1. Mitigation Measures for the French Bug Timber Sale

Units	Mitigation Activity
Wildlife and Fisheries	
22, 23, 39, 47, 48, 55, 57	To protect Northern Spotted Owls, no Type 1 helicopter (CH-47 Chinook, UH-60 Blackhawk and other heavy lifting ships) yarding 3/1 - 9/30. *Note: K-max*

Units	Mitigation Activity
	helicopters are considered type 2 for noise disturbance.
39	To protect Northern Spotted Owls, no helicopter yarding 3/1 – 7/15.
2, 5, 6, 22, 23, 28, 39, 47, 48, 55	To protect Northern Spotted Owls, no burning 3/1 – 7/15
Stand #4004997 (adjacent to Unit #20)	To protect Northern Spotted Owls, no precommercial thinning 3/1 – 7/15
23	To protect Northern Spotted Owls, no aerial fertilization 3/1 – 7/15
34, 35, 37, 38	To protect fisheries resources, no haul 10/16 -5/14
4, 16, 51, 52, 54, 55, and 57	To protect big game winter range, no helicopter operations (from 1/1-4/15)
30, 31, 33, 35 (south of the 4696 road), 36 (from 12/1-4/15) and 15, 16, 21 portion of the unit north of the Santiam River on the 2225-010 road. (from 1/1-4/15)	To protect big game winter range, no operations *Note: dates vary*
All units	Protect all raptor and colonial nesting bird nest sites to comply with Forest Plan S&Gs. Nest site protection will be a no harvest area within one tree height of known nest sites. Directional felling away from known nest trees should be specified in the timber sale contract to avoid direct impacts to the nest site. Nest sites located during harvest operations are to be reported to the district wildlife biologist when encountered by U.S. Forest Service personnel, contractors or others.
19, 20, 21, 60, 62	To protect nesting ospreys, no harvest operations 3/1-7/31
16, 22, 23	To protect nesting ospreys, no helicopter yarding 3/1-7/31
22, 23	To protect nesting ospreys, no precommercial thinning 3/1-7/31
52	To protect nesting ospreys, no harvest operations 4/1-7/31
16, 19, 20, 21, 60, 62	To protect bald eagles, no harvest operations 1/1 - 8/30
19	To protect Peregrine falcons, no helicopter operations 1/15-7/31
20, 21, 22, 23, 24, 25, 60, 62, 64	To protect Peregrine falcons, no operations 1/15-7/31
23	To protect Peregrine falcons, no Aerial Fertilization 1/15-7/31
21, 24, 33, 35 (south of road 4696), 36	To protect Harlequin ducks, no operations 3/15-7/15
Multiple	Existing old growth trees should be retained in all harvest areas as they generally have defect and provide some benefit to snag dependant species. It is estimated less than 20 old growth trees are present in all proposed harvest units.
TES and Noxious Weeds	
All	Eradicate high risk weed populations along roads and disturbed project activity along powerlines to prevent establishment of these small populations, with chemical and manual, scotch broom, black berry and weed canary grass. Forest direction is to eradicate new invader infestations.
All	Contain the existing noxious weed populations and new populations within managed areas. This includes monitor disturbed like gaps and roads after timber sale for 5 years and first year initial eradication. Mitigation measure to reduce

Units	Mitigation Activity
	cumulative affects of the project.
8, 16,	30 foot no harvest buffer between all gaps which abut the powerline corridor and the remainder of the unit to prevent spread of noxious weeds.
16, 22, 23, 24, 28, 31, 35, 36	Avoid known *Peltigera Pacifica* sites by 200 foot buffers
Recreation & Visuals	
31	Close Humbug Trail during tree falling operations.
31	Restore temporary road back to hiking trail width and obliterate sections visible from Road 46 and Humbug Trail.
19, 21, 24	For visuals, handpile slash and logging debris **2 ½ chains** where visible from the Breitenbush Road within one year of project completion. Visual cleanup of slash including grapple piling from road, hand piling, burning, chunking, scattering or chipping. Piles will be placed in manner to minimize charring/damage of residual trees. All logging debris at landings, pullouts and dispersed sites will be cleaned up. Slash treatment may require end haul of residual cull decks, cut stumps and rootwads to an approved location.
31, 33	For visuals, handpile slash and logging debris 1 chain after the 50' no cut buffer along the Breitenbush Road.
34, 35, 38	Visual cleanup **½ chain** where visible from road. Visual cleanup of slash including grapple piling/burning, chunking, scattering or chipping. All logging debris at landings and dispersed sites will be removed. Slash treatment may require end haul of residual cull decks, cut stumps and rootwads to an approved location. This end haul, however, is not the responsibility of the purchaser.
Roads # 46, 2233, 2225, 4695, 4696, 4697	Purchaser shall post "truck traffic ahead" signs to warn travelers coming from either direction.
Roads #46, 2233, 2225, 4695, 4696, 4697	Purchaser shall sign expected traffic delays, as appropriate
Recreation & Visuals (Harvest Restrictions)	
All	No hauling Memorial Day and Labor Day weekends Friday 5 PM through Monday midnight. No Hauling 4th of July Weekend (the weekend that the City of Detroit has their fireworks) Friday 5PM through Monday midnight. If July 4 falls outside the holiday weekend, restrict haul on that day until midnight.
16, 19, 60, 20, 62, 22, 23, 25, 64, 30, 33, 35, 36	No helicopter operations Memorial Day and Labor Day weekends Friday through Sunday. No helicopter operations 4th of July Weekend Friday through Sunday. If 4th of July falls on a Monday, no hauling Friday through Monday.
19, 21, 31, 33, 60 (portions of these)	Between Memorial Day Weekend and Labor Day Weekend, no harvest operations or helicopter yarding within ¼ mile of Humbug Campground and Upper Arm Day Use Area on any Saturday or Sunday.
Heritage Resources	
1, 7, 40, 41, 42, 45, 53	Directional falling of trees away from the historic logging railroad grade segments (06180400979) and full suspension of trees over the grade segments is required to protect the grade's integrity within required units. The goal is to prevent further damage to the historic railroad logging grade. The timber sale layout crew and the timber sale officer will work with the archaeologist to insure that each segment is flagged on the ground prior to timber harvest.
NA	A 150 to 164 foot buffer will adequately protect sites 06180400131, 06180400037, and 06180400154 (TSO and Layout Crew need to work with the

Units	Mitigation Activity
	Archaeologist to insure proper buffer width).
NA	The district archaeologist will conduct post-harvest monitoring to document the condition of each of the above listed cultural sites

Decision Rationale

Rationale for Selecting Alternative 3

Alternative 3 is consistent with the requirements of the amended Willamette National Forest Land and Resource Management Plan to manage the project area for multiple uses and for a sustained yield of forest products over time. This project meets the purpose of the project, as stated above, by using silvicultural methods to reduce tree density in order to enhance tree growth and promote structural and species diversity in stem exclusion stands and by contributing timber products to meet Willamette National Forest long term sustainable harvest levels.

During the 30-day EA comment period, comments were received from four groups (American Forest Resource Council, Cascadia Wildlands, Oregon Wild and Rocky Mountain Elk Foundation) and one individual (Karen Sjogren).

The AFRC comment encouraged the agency to pursue economically viable timber projects and was generally supportive of the proposed project.

The Oregon Wild and Cascadia Wildlands comments expressed general support for the project but also had concerns/suggestions that can be categorized into three broad groupings:

- Questions and concerns as to the size and purpose of the gap cuts in the project.
- Concern over the inclusion of temporary road construction in the project.
- The incorporation of variable density thinning and snag recruitment in the project.

The Rocky Mountain Elk Foundation comment recommended the selection of Alternative 3 and encouraged the agency to pursue additional activities that would benefit big game habitat.

Ms. Sjogren submitted a detailed comment that touched on many aspects of the project. She favored a hybrid alternative—one that incorporated portions of both Alternative 2 and 3.

I carefully reviewed and considered all the comments submitted. I believe that the selected alternative is reasonable and balanced and the effects are disclosed in the EA.

One reason I selected Alternative 3 is that this alternative best responds to the four significant issues identified for the project through the scoping process: **Structural and Species Diversity (Variable Density Thinning), Big Game Forage, Noise Disturbance, and Road Density.**

For structural and species diversity and big game forage, Alternative 3 responds to the issue by including large gaps (1-3 acres) which will provide both stand structural/species diversity and additional big game forage.

The selected alternative responds to the noise issue disturbance issue by lowering the number of acres logged by helicopter by almost 25% (106 acres).

The road density issue is addressed in Alternative 3 by placing winter closures on 4.3 miles of road and putting year round closures on 2.0 miles of road.

In addition, Alternative 3 is an attractive option as it harvests more timber than Alternative 2 and uses less helicopter logging. Economic viability is a concern in any timber project. In the current market, this concern becomes even more significant. The greater harvest volume and less helicopter logging will help to ensure that this sale is economically viable.

On the topic of gaps, public comment split as to the appropriate size of these openings. On one hand, some comments said that gap size should be limited to one acre or less. According to these commenters:

> At three acres, gaps look and function a lot less like a naturally variable stand, and begin to look a lot more like a clearcut. In fact, under alternative three, the "gaps" would be the same size as, and in some cases even larger than, several of the proposed logging units. These large clearings are particularly misplaced in scenic land management allocations, where the goal of management is to mimic natural appearances.

On the other hand, other commenters applaud the introduction of larger gaps. One of these commenters approved of the development of an alternative

> that specifically addressed the need to improve big game foraging opportunities in critical winter range habitats. The larger gaps (1-3 acres in size) that are proposed in Alternative 3 will create 17 more acres of early successional habitat in winter range for species such as Columbian black-tailed deer (*Odocoileus hemionus columbianus*) and Roosevelt Elk (*Cervus elaphus roosevelti*) than Alternative 2. As you know, early successional habitat is not provided by typical thinning treatments. Thinning treatments do not provide the quantity or quality of forage that would be sufficient to sustain wild ungulate populations.

After weighing these arguments, I have decided to keep the larger gaps in the project.

A close look at the unit prescriptions for this project reveals that the large gaps are a very small part of the overall project area. One three acre gap is proposed along with approximately seven two acre gaps. The treatment area for this project is about 1,200 acres while the overall project area is over 17,000 acres. In terms of scope, magnitude, and intensity, these gaps do not represent a significant impact on the landscape. I believe that including these larger gap cuts in the project will help contribute to the purpose and need identified for this project. These stands are mostly homogenous, managed areas that need structural and species diversity.

Alternative 3 will also respond to the issues raised by the public in terms of the need for big game forage in the area. The EA shows that the big game emphasis areas in the project area are deficient in forage. The small (less than one acre) gaps included in Alternative 2 are simply too small to result in much forage growth. The larger gaps in Alternative 3 will help create badly needed big game forage in the project area. The road

closures in Alternative 3 will also help provide protection for critical winter big game habitat.

Other Alternatives Considered

In addition to the selected alternative, I considered one other action alternatives along with the no action alternative.

Alternative 1—No Action

Under the no action alternative, current management plans would continue to guide management of the project area. No timber harvest treatments would be implemented. Forested stands would continue to develop under existing conditions and current stand density levels and growth trends would continue. None of the post-harvest projects listed in the EA nor the road closures, maintenance, or reconstruction would be implemented under the no action alternative.

I choose not to select the no action alternative because it does not meet the purpose and needs identified for the project. The EA states that one of the primary purposes of the project is to use silvicultural methods to reduce tree density in order to enhance tree growth and promote structural and species diversity in stem exclusion stands. The no action alternative does not meet this purpose.

The no action alternative would continue the overstocked, unhealthy condition of stands in the project area.

Alternative 2

Alternative 2, the original Proposed Action, proposes to meet the purpose and need by thinning 1243 acres of forested stands in the French Bug project area. This alternative also includes 34 acres of ½ acre gap cuts. The expected timber volume from this alternative is 14.6 mmbf.

This alternative is different than Alternative 3 in a number of ways. For one, Alternative 2 utilizes more helicopter logging. (There are 465 acres in Alternative 2 harvested by helicopter compared to 359 acres in Alternative 3.) Because of the costs associated with the helicopter logging in this alternative, associated costs for Alternative 2 are higher than Alternative 3.

Alternative 2 contains .38 miles of temporary road construction (compared to the .78 miles in Alternative 3). The analysis did not reveal unacceptable or irreversible effects related to this .40 mile differential between the alternatives. In the interest of economic viability, this gives Alternative 3 a clear advantage of Alternative 2.

Alternative 2 does not include larger (one acre or more) gaps. It also does not include any winter or year round road closures.

In addition, during the scoping period, several comments were received that encouraged the agency to pursue larger gap cuts in these homogenous stands. After analysis and evaluation by the District's interdisciplinary team, it was determined that the purpose and

need for this project could be better met by including some larger gaps in the decision. Similarly, my selection of Alternative 3 allows the agency to best respond to issues identified for this project (e.g. big game forage).

In the final calculation, I choose not to select Alternative 2 because I feel Alternative 3 best meets the project's objectives **and** responds to the issues raised during the scoping period.

Public Involvement

On September 14, 2007, the scoping letter for the French Bug Timber Sale was mailed to tribal contacts including for the Klamath Tribe, Confederated Tribes of the Grand Ronde, Confederated Tribes of the Siltez Indians and, Confederated Tribes of the Warm Springs. In both 2007 and 2008, this project was included in the District's program of work package that is presented and discussed with the Tribes at the annual coordination meetings.

The scoping letter for French Bug was mailed to all other interested parties on September 18, 2007. Comments were received from the following organizations and public agencies: American Forest Resource Council, Rocky Mountain Elk Foundation, Oregon Wild, the City of Detroit, Oregon Department of Fish and Wildlife, Breitenbush Hot Springs and Cascadia Wildlands Project. Two individuals also submitted comments. All correspondence and the full text of letters received are available in the analysis file for the French Bug Timber Sale at the Detroit Ranger District office.

The proposal has been listed in the Schedule of Proposed Actions (SOPA) or "Forest Focus" throughout the project planning process. The Willamette National Forest publishes the SOPA quarterly on the web and sends the document to over 100 individuals, groups and industry representatives.

Several informal meetings were held with those that expressed interest in the project including Portland General Electric, the Breitenbush Community and Dave Wiley of the Rocky Mountain Elk Foundation.

The EA was released for a 30-day comment period on July 14, 2008. Four groups and one individual submitted comments: Oregon Wild, the American Forest Resource Council, Rocky Mountain Elk Foundation, Cascadia Wildlands and Karen Sjogren. Appendix B of this Decision Notice contains the responses to the comments contained in these comment letters.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following.

Context: The selected alternative is limited in geographic context (40 CFR 1508.27(a)). The area of proposed activity is relatively small when considered in a watershed

perspective. There is not an expectation that significant indirect effects will occur with the implementation of Alternative 3. Likewise, cumulative effects are expected to be negligible and are documented in the EA in Chapter 3.

Intensity: Ten elements of impact intensity identified in 40 CFR 1508.27b have been considered in assessing the potential significance of project effects. They are as follows:

1. No significant adverse *direct or indirect effects to the environment* from this project were identified during the environmental effects analysis. No significant irreversible or irretrievable commitments of resources, such as loss of soil productivity, water quality, wildlife habitat, or recreational opportunities, will result from this project. As described on pages 1-148 of Chapter 3 of the EA, adverse effects and the reasons they are not expected to be significant include:

    - Water Quality – effects to water quality are expected to be "minimal, if any" (EA, Chapter 3, pp. 113).

    - Fisheries – "The implementation of Alternative 3 … is not expected to result in a measurable change in the survival rate, distribution, or population size of any resident or anadromous fish species within the analysis area" (EA, Chapter 3, p.115).

    - Big Game – improved habitat values through small increase in forage and road closures (EA, Chapter 3, p. 36).

    - Threatened/Endangered, and Sensitive Species – Effects to Peregrine falcon, Bufflehead, Harlequin duck, California wolverine, Northern bald eagle, Baird's shrew, Pacific fringe-tailed bat, Pacific Fisher, Pacific shrew, Cascade torrent salamander, Crater Lake tightcoil snail, and Oregon slender salamander range from no effect to very small impact (EA, Chapter 3, pp. 57-58). The project will not jeopardize the Northern Spotted Owl (EA, Chapter 3, p.63).

    - Sensitive/Management Indicator Species (MIS) – There are minimal effects to MIS habitat from this project (EA, Chapter 3, pp. 48-50).

    - Botanical Species – no direct effects to known lichen sites are expected, but individual fungi sites may be negatively affected in the short term. These effects are not likely to result in a trend toward Federal listing or loss of viability for sensitive fungi species (EA, Chapter 3, pp. 66-68).

    - Soils –effects to soil displacement, compaction, instability, and nutrient loss are expected to be minimal (EA, Chapter 3, pp 77-86).

    - Recreation and Scenic Resources – limited recreational impacts are expected from timber activities (EA, Chapter 3, pp. 128-129).

    - Heritage Resources – there are no direct or indirect effects expected from this project (EA, Chapter 3, p. 143).

2. *Significant effects to public health and safety* are not anticipated to result from implementation of Alternative 3.

3. The supporting documentation located in the EA and Project Record provides sufficient information to determine that this project will not significantly affect any known unique characteristics of the geographic area such as park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas such as historic or cultural resources.

   There are no park lands or prime farmlands in the project area. All wetlands will receive adequate protection buffers to avoid any disturbance from timber harvest. Culvert replacement activities that occur within wetland areas will employ Best Management Practices to protect downstream resources from impacts.

   A cultural resource survey has been completed on all proposed treatment areas. The site types recorded within the French Bug project area include lithic scatters and historic railroad logging features. These sites are considered potentially eligible to the National Register of Historic Places (NRHP) and must be protected from project activities or evaluated to determine their eligibility to the NRHP. The proposed French Bug Timber Sale has the potential to affect four of the known cultural sites (06180400979, 06180400131, 06180400037, and 06180400154) within or near the project area. Since appropriate and approved surveys and cultural site protection measures are already in place for this project (see Mitigation Measures in Chapter 2 of the EA), the potential direct effects would be in the form of inadvertent damage to the integrity of cultural resources which were not discovered during initial survey. Any sites uncovered during implementation of the project would require the application of Design Measures described in Chapter 2.

4. The project is unlikely to have *highly controversial* effects. The nature of potential effects on the human environment from Alternative 3 is well established and not likely to be highly controversial. While the public may perceive some aspect of the project (e.g., temporary road construction) to be controversial, there is no known scientific controversy over the impacts of the decision.

5. The project effects do not entail *uncertain, unique, or unknown risks*. The effects on the human environment from Alternative 3 are not uncertain and do not involve unique or unknown risks. All proposed actions are standard practices that have been previously implemented with known cause and effect relationships.

6. The action will not establish a *precedent for future actions* with significant effects, because it conforms to all existing Forest Plan direction and is applicable only to the project area

7. No potentially significant *adverse cumulative effects* of the project have been identified (EA, Chapter 3, pp. 1-6, 14-15, 27-28, 30, 31-69, 73, 76, 82, 84, 85, 103-104, 109-110, 115-116, 120, 124, 129, 139, 143, and 146).

8. This action will not cause loss or destruction of significant scientific, cultural, or historical resources. An appropriate review has been conducted by this

undertaking (as discussed in Factor 3). Both previously known and unknown significant cultural sites discovered in field surveys will be avoided. Because cultural resources will not be affected by this action there will be no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. (EA, pp. 117-119).

9. The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

   Need for consultation with the U.S. Fish and Wildlife Service is based on the project's effects on threatened and endangered species and critical habitat. Based on the finding of the BE that the French Bug timber sale is not likely to adversely affect northern spotted owls, concurrence is needed from the USFWS for this determination.

   French Bug was submitted to US Fish and Wildlife Service (USFWS) in February 2008 as part of the "Willamette National Forest, Biological Assessment (BA) for Four Vegetation Management Projects" requesting a letter concurrence from the USFWS. Alternative 3 was submitted to USFWS as it has 21 more acres of thinning and larger gap sizes than Alternative 2. A letter of concurrence was signed April 4, 2008 (reference number 13420-2007-I-0038). For Northern Spotted Owls a "may affect and not likely to adversely affect" determination was made for effects related to the implementation of the project (USDI, 2008).

   For other Endangered or Threatened species, there is no expectation that the French Bug project will result in adverse effects to either the species or their habitat (EA, Chapter 3, pp. 52-63).

   Consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) was completed using the *Endangered Species Act Section 7 Informal Consultation for the 2007-2009 Thinning Timber Sales Programmatic on the Mt. Hood and Willamette National Forests and portions of the Eugene and Salem Bureau of Land Management Districts* (NMFS Reference 2007/00170) referred to as Programmatic Timber Sale BA Programmatic Timber Sale BA (2007). A letter of concurrence dated June 10, 2008, was received from NOAA Fisheries.

10. The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA, (pages 147-148). The action is consistent with the Willamette National Forest Land and Resource Management Plan (EA, page 147).

Findings Required by Other Laws and Regulations

This decision to implement Alternative 3 is consistent with the intent of the forest plan's long term goals and objectives listed on pages IV-2 to IV-44. The project was designed in conformance with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines for Management Areas 11a,c

and f, and 14a where activities will occur implementing this decision (EA, Chapter 1, pp. 8-9) (Willamette National Forest Land and Resource Management Plan, pp. IV-201 to IV-215 and IV-227 to IV-230).

This decision is consistent with all applicable Acts and Regulations such as the National Forest Management Act of 1976, National Environmental Policy Act of 1969, Endangered Species Act of 1973, Clean Water Act of 1972 and section 319 of the 1987 CWA, Civil Rights Act of 1964, Title VI and Environmental Justice Executive Orders 11988 and 11990, The Preservation of Antiquities Act of June 1906 and the National Historic Preservation Act of October 1966, Executive Order 12962 on Recreational Fishing, and Executive Order 13186 on Neotropical Migratory Birds. (EA, Chapter 3).

Administrative Review or Appeal Opportunties

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. Appeals can be submitted in several forms, but must be received by Forest Supervisor Dallas Emch, the Appeal Deciding Officer, within 45 days from the date of publication of notice of this decision in the Statesman Journal, Salem, Oregon. The publication date in the Statesman Journal, newspaper of record for the Detroit Ranger District, is the exclusive means for calculating the time to file an appeal. Attachments received after the 45 day appeal period will not be considered. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

Appeals may be:

1) **Mailed** to: Appeal Deciding Officer, Dallas Emch, Forest Supervisor; ATTN: Appeals, 211 E 7th Avenue, Eugene, OR 97440.

2) **Emailed** to: appeals-pacificnorthwest-willamette@fs.fed.us. Please put APPEAL and “French Bug Timber Sale” in the subject line.

Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc) to the email address above. In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

3) **Delivered** to: Willamette National Forest, Supervisor’s Office at 211 E. 7th Ave, Eugene, OR 97401, between the hours of 8:00 am and 4:30 pm, M-F.

4) **Faxed** to: Willamette National Forest, Supervisor’s Office, ATTN: APPEALS at (541) 225-6222.

The notice of appeal must meet the appeal content requirements at 36 CFR 215.14.

Contact Person

For further information on this decision, contact Richard Hatfield, Natural Resource Planner, HC 73, Box 320, Mill City, OR 97360. Phone: (503) 854-4219.

Copies of the Environmental Assessment and this Decision Notice can be found on the Willamette National Forest Website at:
http://www.fs.fed.us/r6/willamette/manage/nepa/current_detroit.html

Implementation Date

As per 36 CFR 215.9, if no appeal is received, implementation of this decision may occur on, but not before, the 5th business day following the close of the appeal filing period (215.15). When an appeal is filed, implementation may occur on, but not before the 15th business day following the date of appeal disposition (36 CFR 215.2).

Paul Matter September 3, 2008

PAUL MATTER Date
District Ranger

Appendix A – Alternative 3 Summary Tables and Figures

Table 2 Alternative 3 Harvest Unit Summary

Unit	Thin Ac.	Trees Remaining/acre	Gap Rx	Gap (acres)	Temp Road constructed (feet)	Past Temp Road Reopened (feet)	Volume (MBF)	Logging System
1	62	80-100					651	H/S
2	2	80-100					18	S
3	6	80-100					54	S
4	15	80-100			50		150	H/S
5	57	80-100					513	S
6	10	80-100					100	S
7	9	50-70					102	S
8	34	50-70	5% (1/2 ac)	2	150	100	417	S
10	3.5	50-70	10% (1/2 ac)	0.5			61	S
11	2	50-70					20	S
12	7	50-70					63	S
13	8	50-70					127	S
14	15.5	50-70	5% (1/2 ac)	0.5			188	S
15	3	50-70					43	G
16	43	50-70	5% (1/2 ac)	2	100	200	750	G/S
19	27	110					289	H/S
20	108	80-100	5% (2 ac)	2			1100	H
21	12	110					120	S
22	16	80-100					160	H
23	23	80-100					253	H
24	21	110					162	S
25	12	80-100					72	HS

Unit	Thin Ac.	Trees Remaining/acre	Gap Rx	Gap (acres)	Temp Road constructed (feet)	Past Temp Road Reopened (feet)	Volume (MBF)	Logging System
26	22	80-100					198	S
27	41	80-100	5% (2 ac)	2			406	G/S
28	26	80-100	10% (2 ac)	2		1000	291	S
29	16	80-100	10% (1/2 ac)	2			334	G/S
30	130	80-100	10% (1 ac)	3		250	1366	H/S
31	59	80-110	5% (2 ac)	2	3000		984	G
33	29	80-110	5% (1/2 ac)	1	250	250	388	G/H/S
34	3	50-70					38	G
35	66	80-100	5% (2 ac)	2			991	G/H/S
36	25	80-100	10% (1 ac)	2	100		318	H/S
37	23	80-100	5% (1/2 ac)	1			232	G/H/S
38	44	80-100				120	396	S
39	14	50-70					168	S
40	14	50-70					154	H/S
41	49	50-70					632	S
42	9	50-70	10% (1/2 ac)	1			120	S
43	14	50-70			100		196	G/S
45	32	50-70	10% (1/2 ac)	3		600	469	H/S
47	7	50-70	20% (2 ac)	2			154	H
48	3	50-70					39	H

Unit	Thin Ac.	Trees Remaining/acre	Gap Rx	Gap (acres)	Temp Road constructed (feet)	Past Temp Road Reopened (feet)	Volume (MBF)	Logging System
51	5	50-70					56	H
52	53	50-70	10% (1/2 ac and 3 ac)	5	100		780	H/S
53	6	50-70			200		70	S
54	11	50-70	10% (1/2 ac)	1			161	H/S
55	16	50-70					192	H/S
56	7.5	50-70	5% (1/2 ac)	0.5	800	2200	102	S
57	6	50-70					62	H
60		Gaps Only**	5% (1/2 ac)	4			120	H
62		Gaps Only**	10% (1/2 ac and 2 ac)	7			210	H
64		Gaps Only**	10% (1/2 ac)	1			30	H
All	**1264**			**51***	**4050**	**2520**	**15088**	

* 51 acres total is 21 acres of ½ acre gaps and 30 acres of 1-3 acre gaps.
**Gaps Only – no thinning is prescribed in the units

Table 3. Alternative 3 Summary

	Unit of Measure	Alt. 3
Thinning	Acres	1264
Gap only stands	Acres	12
Total Harvest Area	Acres	1276
Estimated Timber Volume	MMBF	15.1
Ground	Acres	179
Skyline	Acres	738
Helicopter	Acres	359
Haul Road Maintenance	Miles	36
Reconstruction	Miles	4.2
Road Closures	Miles	6.3
Temp. Road Construction	Miles	.78
Temp. Road Reopening	Miles	.48
Grapple Pile and Burn	Acres	Approximately 650 acres
Gap Underburning	Acres	25

Figure 1. Alternative 3 (French Bug Arm)

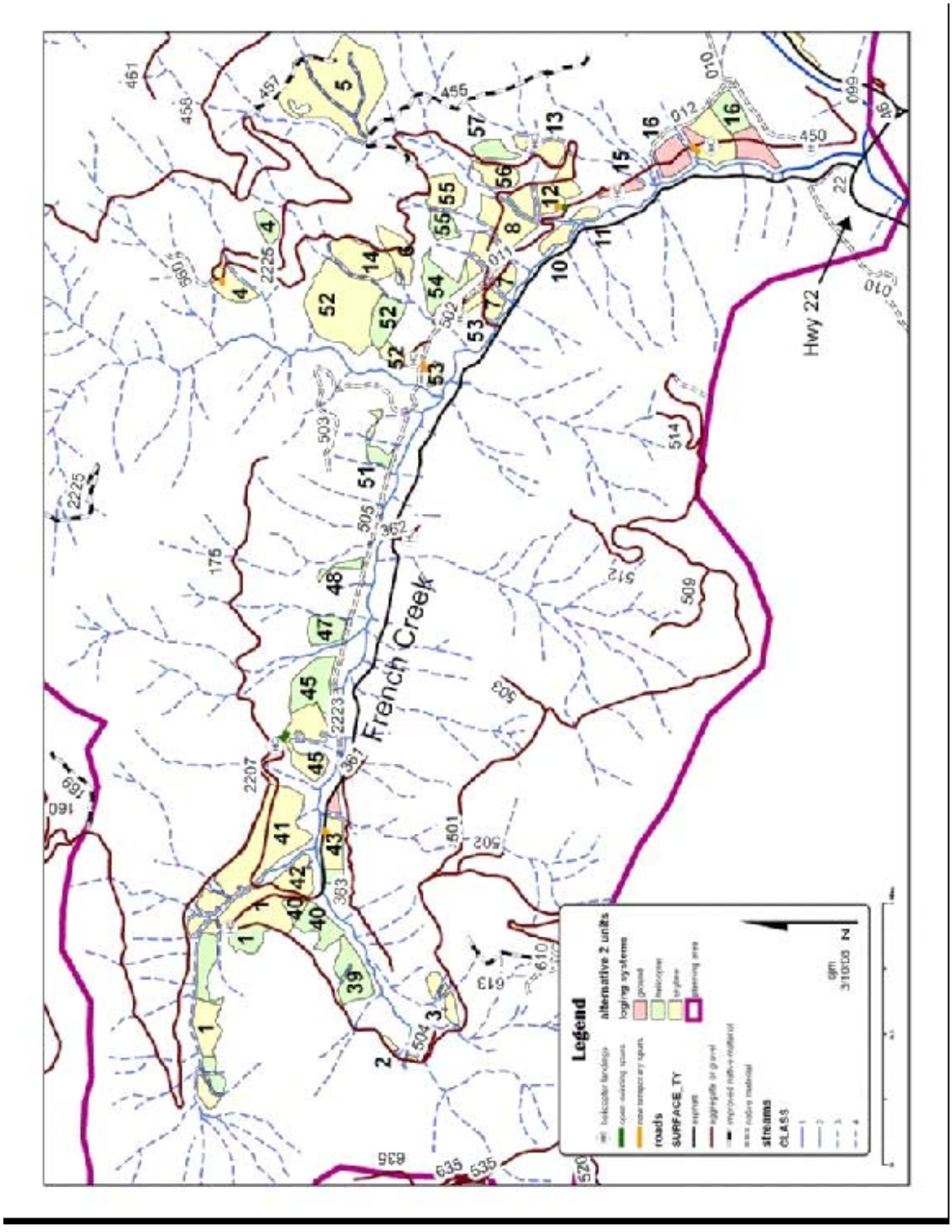
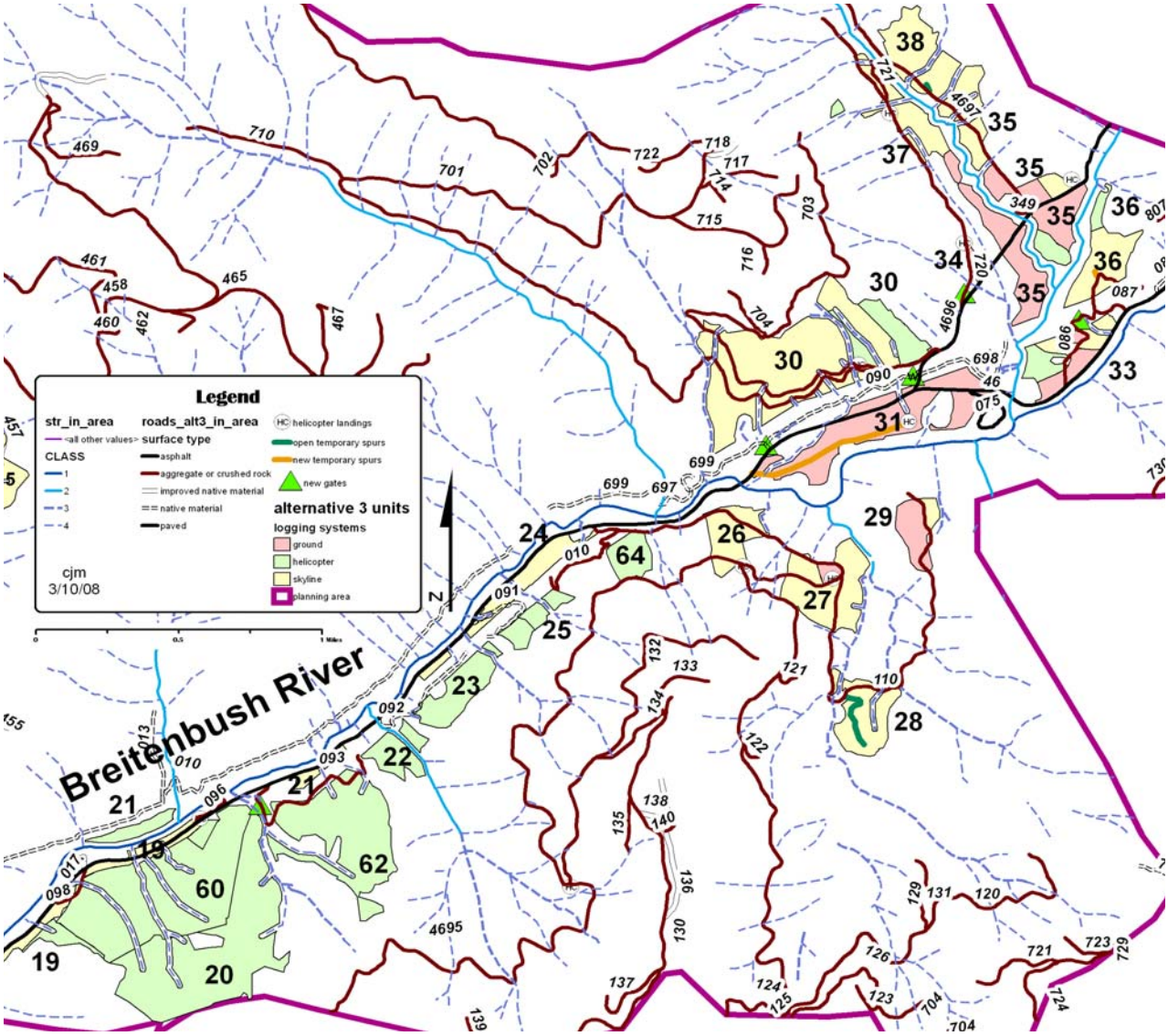


Figure 2. Alternative 3 (Breitenbush River Arm)



Appendix B – French Bug Timber Sale EA Response to Comment

Introduction

The Environmental Assessment was available for public review and comment from July 14, 2008, to August 13, 2008. Five written comments were received during the comment period: Oregon Wild, American Forest Resource Council, Rocky Mountain Elk Foundation, Karen Sjogren, and Cascadia Wildlands. Calls were also received from Karen Sjogren, Josh Laughlin (Cascadia Wildlands), and Dave Wiley.

Public responses submitted on the French Bug Timber Sale EA were documented and analyzed using a process called content analysis. This is a systematic method of compiling and categorizing all of the public viewpoints and concerns submitted during the official comment period for the EA. Content analysis helps the Forest Service identify issues and concerns with the Environmental Assessment and helps the decision maker arrive at an informed decision.

I. Process and Planning

Comment #1: Seasonal, recreational, and wildlife restrictions often make timber sales extremely difficult to complete within the contract timelines. Fire season restrictions on top those can often limit workdays to 4-5 hours. Around Detroit Lake, dense fog can also make logging operations difficult and delay operations. All these restrictions have a cost to the purchaser and results in a lower bid for the stumpage. AFRC applauds the efforts to reduce some of the recreational restriction issues in Alternative 3 and would like to continue to encourage the Detroit Ranger District to offer sales that will allow winter harvesting and haul on units where it is possible. It appears the majority of the haul routes for the French Bug Project are on rocked or paved surfaces, AFRC is pleased that the Forest Service will allow winter harvesting on some of these improved roads. The loggers need winter work and the mills generally need winter wood, this is a big bidding issue for a purchaser. (letter #1)

Response to Comment #1: Some restrictions (e.g., fire and wildlife) are unavoidable. The French Bug Timber Sale and Alternative 3 have attempted to minimize the restrictions placed on the project while providing the necessary measures to mitigate the effects of the proposed actions. Even in March and April (the most heavily restricted months), 546 acres of the harvest units are unrestricted and available to be logged (see table below).

Table 4. Unrestricted Harvest Acres by Month

Month	Unrestricted Acres	Acres No Helicopter Operations	Acres No Operations
January	563	112	601
February	563	112	601
March	546	129	601

Month	Unrestricted Acres	Acres No Helicopter Operations	Acres No Operations
April	546	71	659
May	776	39	461
June	776	39	461
July	776	39	461
August	1103	78	95
September	1198	78	0
October	1276	0	0
November	1276	0	0
December	956	0	320
Average:	863	58	355
Average %:	72%	5%	28%

II. Alternatives

Comment #2: We support Alternative 3 as it is clearly the most economically viable of the two action alternatives while best addressing multiple natural resource objectives and meeting the stated purpose and need. (letter #1)

Comment #3: AFRC is pleased that the Detroit Ranger District created an alternative (Alternative 3), that specifically addressed the need to improve big game foraging opportunities in critical winter range habitats. The larger gaps (1-3 acres in size) that are proposed in Alternative 3 will create 17 more acres of early successional habitat in winter range for species such as Columbian black-tailed deer (*Odocoileus hemionus columbianus*) and Roosevelt Elk (*Cervus elaphus roosevelti*) than Alternative 2. As you know, early successional habitat is not provided by typical thinning treatments. Thinning treatments do not provide the quantity or quality of forage that would be sufficient to sustain wild ungulate populations. AFRC applauds the Detroit Ranger District's leadership on working to improve big game winter range habitat. (letter #1)

Comment #4: The purpose of this letter is to recommend selection of Alternative 3 as presented in the environmental assessment of the French Bug Timber Sale. Alternative 3 provides the greatest opportunity for improvement in early seral stage forage, which is essential for elk and deer forage, and for improved species diversity in general. (letter #4)

Comment #5: Both of the action alternatives have positive and negative aspects. In my opinion, the chosen alternative should be a combination of the two including: Thinning on the larger acreage and harvesting more timber (Alt 3), include both large and small gaps (Alt 3); no underburning of larger gaps (Alt 2); replant gaps with western white pine and western red cedar; construct the minimal number of temporary road mileage (Alt 2), gating roads (alt 3). (letter #5)

Comment: #6: It appears that the Forest Service has grouped large gaps with road closures in alternative three, and grouped small gaps with no road closures in alternative two. An ideal hybrid of these two alternatives would involve both road closures and gaps of no more ½ acre. This hybrid alternative would address concerns about excessively large gaps while improving elk habitat and having a negligible impact of timber volume. (letter #2)

Response to Comments #2-6: All three alternatives were analyzed in the EA and considered in the decision. For the reasons outlined in this Decision Notice, Alternative 3 was selected.

III. Environmental Consequences

Botanical Resources

Comment #7: Will underburning decrease the possibility of invasive plant introduction if the seeds of scotch broom can persist in the soil? Can native species be planted in the gaps w/out first underburning? (letter #5)

Response to Comment #7: Yes, underburning the gaps decreases the possibility of invasive plant introduction. While it is possible to plant native species in the gaps without underburning, the competition these plants will have with weeds lessen the chance of their success.

Silviculture

Comment #8: For both of the action alternatives, the maximum diameter of the trees to be cut should be given (Tables 2-1 and 2-2), rather than just the remaining tree density, Otherwise, the public cannot be assured that this is truly a thinning project, with dominant and subdominant trees left standing. (letter #5)

Comment #9: Thinning should focus on the smallest trees that have established due to recent planting or fire suppression and leave a healthy canopy of medium and large trees that are so valuable for wildlife habitat and as future sources of large snags and large down wood. Once the largest trees are protected, “free thinning” of the smaller trees might be appropriate so the full range of small trees are retained. (letter #3)

Response to Comments # 8 and 9: There is no maximum cut diameter limit prescribed for the French Bug units. The average overstory tree diameters in the stands range from from 11 to 21" at dbh with an overall average stand diameter of 15" at dbh across all stands. The type of treatment proposed is thinning from below which leaves the dominant trees and generally the largest trees in a stand. This type of thinning removes intermediate and codominant trees which are the smaller trees most likely to die from competition or suppression.

Comment #10: Hardwood trees along roads add fall color and species diversity in this scenic area, they should not be cut. (letter #5)

Response to Comment #10: For this project, hardwood trees will not be cut.

Comment #11: Oregon Wild makes the following recommendations to enhance the quality of restoration-thinning prescriptions:

All thinning should be variable both within and between stands. Treatments should include untreated "skips" as well as heavily thinned gaps.

Retain and protect under-represented conifer and non-conifer trees and shrubs. Generally retain all the largest trees, then "free thin from below" retaining some small trees in all age-size classes. When conducting commercial thinning projects take the opportunity to implement other critical aspects of watershed restoration especially pre-commercial thinning, restoring fish passage, reducing the impacts of the road system, and treating invasive weeds.

We wish that you would use variable density thinning prescriptions in all young stand thinning projects regardless of land allocation. Uniform spacing basically sets up the need for future thinning that the agency may not have sufficient funding, capacity, and public support to accomplish. Whereas variable density thinning leaves more options for either more or less intensive management in the future and is a good hedge against uncertainty. The benefits of variable density thinning include: creating a patchy variety of conditions of light, heat, wind, moisture, competitive stress, and hiding cover within the stand and the landscape; setting up the stand so that there are future "winners" and "losers" (the winners become big trees and the losers become snags and coarse woody debris), etc. (letter #3)

Response to Comment #11: The French Bug Timber Sale incorporates many aspects of variable density thinning, including a variety of thinning prescriptions, gaps cuts, and unthinned areas. The proposed treatments are designed to enhance growth and begin a trend toward structural and species diversity in the General Forest, Matrix, and Scenic land allocations; set the stage for the development of late-successional conditions in Riparian Reserves and CHU's; and help provide for important ecological functions in the future as well as timber production in accordance with the Northwest Forest Plan.

No treatment will occur on approximately 42% of the original stand boundaries. This acreage was delineated out due to 1) resource considerations such as protection buffers adjacent to streams and special habitat areas, 2) logistical considerations such logging feasibility, or 3) areas not in need of thinning. This combination of treatment and no treatment will result in skips and gaps within stands and promote variable density at the stand scale. Retaining hardwoods and favoring minor tree species in the thinnings will also promote variable density. The mixture of three different thinning intensities and gaps is proposed across the planning area to provide diversity at the broader, landscape scale.

Comment #12: Thinning the harvest units that are less than 50 years old will hopefully have minimal impact on the environment (especially soil, water, and wildlife) and thinning such young stands will likely have long-term ecological benefits in terms of accelerating late successional forest characteristics.

However, thinning the harvest units that are over 50 years old is more likely to have significant environmental impacts and the long-term benefits in terms of accelerating development of late-successional characteristics is uncertain at best. Recent science tells

us that thinning in older stands is less likely to change the trajectory of the stands. The agency should refocus its efforts on younger stands where the results are likely to be on balance more beneficial.

There is scientific controversy over the question of whether and to what degree it is beneficial to thin older trees to accelerate late-successional characteristics. An EIS is needed to address this question.

The EA should have had a better discussion (in light of recent research results) of the anticipated impacts and benefits of thinning on the different age classes of trees in the different harvest units. The EA should have had another alternative that considered deferring harvest of the older stands.

As we move from young forest to older forests, the net benefits turn into net negative impacts, but where is that line? The authors of the Northwest Forest Plan took all this into account and determined that 80 years is a useful place to draw the line between forests that are likely to benefit from silviculture and those that are likely to experience net negative consequences. There is no new science to change that conclusion. (letter #3)

Response to Comment #12: We strive to evaluate all commercial thinning opportunities within a planning area. Densely stocked second-growth stands within a planning area are evaluated for possible treatment based on stand characteristics such as tree density, size and growth rates. Certainly, those younger stands, where competition has not yet resulted in a slower growth rates, provide an excellent opportunity to maintain the current good growth rates and maximize that growth over the life of the stand. Other stands, where competition has already slowed growth rates, provide an opportunity to release residual trees, improve their growth rates, and thus increase the growth over the life of the stand. The thinning proposed in the French Bug planning area is designed to 1) maintain or improve tree growth for vigorous growing, healthy stands and 2) provide for understory development to enhance species and structural diversity. Both types of stands are considered in our planning areas because they do respond to thinning and provide opportunities to meet these objectives.

Comment #13: The Forest Service should manage for decadence. Techniques for enhancing decadence may include: Retaining all large snag and large dead wood by keeping workers out of the hazard zone if necessary. Intentionally retaining leaning trees, and trees with defects, broken tops, forked tops, etc. Leaving some untreated skips where future mortality can be expected. When determined to be necessary, snag creation must be a creative endeavor. Trees killed in different way will die and decay in different ways. A variety of techniques should be used within and between stands: girdling, topping, burning, infecting with heart rot fungus or other native pathogens, etc.

Continuous recruitment of snags is critical to development of old growth forest habitat. This is especially critical in uplands that are already short of snags and in riparian areas where recruitment of large wood is important to stream structure. It is often asserted that thinning grows big trees faster and therefore results in more rapid recruitment of large snags, but FVS and other tools show this NOT to be true. In fact, thinning both reduces and delays recruitment of snags, first by removing trees that would otherwise suffer suppression mortality, and second by increasing stand vigor and postponing overall

mortality. The implications are that heavy thinning should be used sparingly and generous unthinned patches should be retained WITHIN thinned stands in order to continue the snag recruitment process and mitigate for captured mortality. (letter #3)

Retain abundant snags and coarse wood both distributed and in clumps so that thinning mimics natural disturbance. Retention of dead wood should generally be proportional to the intensity of the thinning, e.g., heavy thinning should leave behind more snags not less. Retain wildlife trees such as hollows, forked tops, broken tops, leaning trees, etc. (letter #3)

Comment #14: We encourage the Forest Service to incorporate snag creation into the French Bug project. Let's kill some trees but leave them standing. As the Forest Service knows, snags play an important role in forested landscapes. Girdling and inoculating a few trees per acre could have long-lasting beneficial impacts on the project area. (letter #2)

Response to Comments #13 and 14: Chapter 3, Silviculture, pages 7-15 discusses the effects resulting from thinning. Also discussed are the growth rates of unthinned and thinned stands. Stand diameters over time are listed for existing and treated stands in Tables 3-4 and 3-6

In Chapter 3, pages 37-45 also address your concerns related to snags and downed wood

While it may be true that thinning "captures mortality," this management provides other ecological benefits by allowing trees to grow larger, faster and develop more suitable characteristics (e.g. large limbs, crowns).

Also the stands in this project area tend to have trees on the smaller side (average 15'' dbh), not the 20'' and greater typically desired for snags.

Aquatics

Comment #15: AFRC would also like to continue to support the Detroit Ranger District's thinning treatments inside the riparian reserves. By prescribing smaller no cut buffers (25-60 feet) to be left to maintain stream temperatures and thinning the remaining acres inside the riparian reserves you can achieve the management objectives of moving them into late seral habitat faster. By reducing the no cut buffers to 25-60 feet and thinning down to that distance, the forest also harvests more volume during the sale thus reducing unit cost. We encourage the Forest Service to continue to use silvicultural thinning treatments in riparian reserves on future projects to accelerate the development of desired riparian conditions. (letter #1)

Comment #16: No-cut boundaries in Riparian Reserves should be wider on non-LFH streams – 50' on intermittent streams and 100' on perennial streams, even if the primary shade zone is 30'/50'. The wider buffers would be more aesthetically pleasing and better protect riparian-dependent species (including Harlequin Duck and Baird's Shrew), consistent with ACS objectives. (letter #5)

Comment #17: Alternatives 2 and 3 will substantially decrease the large wood contribution to fish bearing streams relative to the No-Action Alternative, and the

decreases will be long-term. This is because thinning will remove wood large enough to form pools from the riparian zone (if the term large wood is defined by its ability to form pools rather than the arbitrary value of >20 inches diameter) (Beechie et al. 2000). (letter #3)

Comment #18: Don't make the mistake of assuming that thinning is always consistent with the ACS because it helps grow large trees faster. First, thinning captures mortality and actually delays recruitment of large wood. Second, the agencies often misinterpret the Northwest Forest Plan ROD by confusing accelerated attainment of ACS objectives with ACS compliance. The NWFP ROD actually says that silviculture in riparian reserves is generally prohibited, and allowed only "if needed to attain" ACS objectives, not (as implied by the EA) if needed to "accelerate" ACS objectives. This is a common "group-think" misinterpretation of the ACS. The appropriate evaluation is to ask "will ACS objectives eventually be met without intervention?" If the answer is "yes," then silviculture is technically not allowed. Confusion may stem from the fact that the ACS also has a "do not retard" standard, but this is separate from the "if needed" test, and is itself a criteria to limit active management, not an excuse to reject the no action alternative. The "do not retard" standard cannot be interpreted to require active management whenever and wherever it would accelerate attainment of ACS objectives. That would lead to all kinds of problems, such as cumulative impacts, unintended consequences, and sacrificing some aquatic objectives in the pursuit of others. Oregon Wild is not absolutely opposed to treatment of riparian reserves but we want to avoid the slippery slope of just assuming "it's all good" without careful analysis and justification. (letter #3)

Response to Comments #15-18: Thinning within the Riparian Reserve is only to be done to obtain the Aquatic Conservation Strategy Objectives. These objectives are varied and require site specific evaluation. The French Bug prescriptions are just that: site specific and designed to obtain the ACSO. These prescriptions range from 30 feet to 172 feet depending on site characteristics and benefits to aquatic and terrestrial resources found within the reserve. They evaluate all components needed to restore and maintain the health and viability of the site and landscape riparian area while meeting the Water Quality Management Plan as agreed to by the State of Oregon to restore the water quality of the area. With these site specific prescriptions, it is anticipated that all components of the riparian reserve: stand health, large wood for the stream, large wood for terrestrial, bank stability, shade, microclimate, wildlife habitat, bank stability and leaf litter recruitment, are accounted for in a way that meets physical, biological and economical objectives.

Comment #19: Where are "equipment exclusion buffers" (p.106) as a mitigation measure or design feature. (letter #5)

Response to Comment #19: The above mentioned project design feature is included in the Best Management Practices for this project.

Fire and Fuels

Comment #20: There should be no underburning as I am concerned that it will get out of control and enter riparian or other sensitive areas. Please describe mitigation measures

that will make this procedure low-risk. Underburning is also expensive, how is this added cost justifiable in gap areas? (letter #5)

Response to Comment #20: Underburning is both a means of reducing fuels in the project area and of preparing the gaps for forage enhancement and site preparation for planting. Treating fuels by prescribed burning would take place when fuel moistures are greater or equal to 25% to ensure soil and duff retention levels are maintained at or below duff retention objectives. The costs associated with underburning are justified both in terms of fuels reduction in these gap units and the benefits associated with preparing the soil for replanting.

Comment #21: Avoid grapple piling because it causes unacceptable soil damage. (letter #3)

Response to Comment #21: Grapple piling is one of the fuels reduction activities proposed in this project. Hand piling is often cost prohibitive. The effects related to grapple piling activity generated fuels is disclosed in the EA on pp. 79 and 83.

Wildlife

Comment #22: We suggest that in developing the KV Plan for French Bug that the use of the standard Willamette National Forest forage seed mix is prescribed for re-vegetation of all skid trails, yarding corridors, closed roads and landings, and any other site that is prescribed for re-vegetation. Second, also related to the French Bug KV Plan, we recommend that measures for restoration and enhancement of all natural openings and meadows within the sale area are included in the KV Plan. (letter #4)

Response to Comment #22: The French Bug KV Plan includes the use of big game forage to reseed the larger gaps included in Alternative 3. The suggestion to restore and enhance meadows in the project area is a good one and will be considered for future projects.

Comment #23: The last sentence on page 44 is not clear. Do losses of snags for safety reasons increase DWD? (letter #5)

Response to Comment #23: The loss of snags for safety reasons may result in increased DWD if the tree is cut and left.

Comment #24: Why weren't surveys conducted for raptors in sale units? How can active roost and nest sites be protected if it is not known where they are? (letter #5)

Response to Comment #24: Past survey information was utilized to help inform the analysis and decision for the French Bug Timber Sale. Known sites will be protected by the seasonal restrictions on harvest operations and helicopter yarding during the nesting season. Unknown sites will be protected by the design measure that requires nest sites located during harvest operations be reported to the district wildlife biologist when encountered by U.S. Forest Service personnel, contractors or others. Also, for some raptor species (e.g. osprey), nest sites change yearly—surveys conducted years before the harvest may be of limited value.

Comment #25: Cavity excavators were not discussed in the snags section. What species are they and how are they affected by the lack of large snags? (letter #5)

Response to Comment #25: The primary cavity excavators considered for this project are woodpeckers. Effects to the species are not discussed in the section. Rather, habitat is used as a proxy for these species.

As the EA points out, because of past activities, some portions of the project area are deficient in the desired number of snags. Because of the relatively small diameter of the tree in this project area, however, it is not desirable to create snags in conjunction with this project. It may be that after the stands are thinned and the trees grow bigger that it will be advantageous to create snags in these stands.

Comment #26: Why were no surveys for NSO conducted as part of this analysis? Data from the 1990s is outdated. (letter #5)

Response to Comment #26: Surveys for Northern spotted owls are not required for this project. Also, protocol surveys to confirm nesting can be quite costly and time consuming. It is not a wise use of scarce resource to conduct surveys for a project determined to "may affect and not likely to adversely affect" the species.

For this project, an activity center map is used that includes known pair sites and predicted sites. This map is generated by the Forest Service and U.S. Fish and Wildlife Service and is used to determine seasonal restrictions.

Comment #27: How would greater helicopter logging under Alt 2 affect peregrine, given the mitigation measures in Table 2-5. (letter #5)

Response to Comment #27: The effects analyses for the two alternatives are similar. While Alternative 2 includes more helicopter logging, the seasonal restrictions help to mitigate effects to peregrine.

Comment #28: Why was the Red tree vole not covered in the BE? (letter #5)

Response to Comment #28: The Biological Evaluation covers Sensitive, Federally Threatened, Endangered, and Proposed for Listing Species. The Red Tree Vole was formerly a "Survey and Manage" Species. It is now considered "Rare and Uncommon."

Gaps

Comment #29: The three-acre gaps proposed under alternative three are excessive and unnecessary. We strongly urge the Forest Service to stick with the preferred alternative that authorizes gaps of no more than 1/2 acre. At three acres, gaps look and function a lot less like a naturally stand, and begin to look a lot more like a clearcut. In fact, under alternative three, the "gaps" would be the same size as, and in some cases even larger than, several of the proposed logging units. These large clearings are particularly misplaced in scenic land management allocations, where the goal of management is to mimic natural appearances. Concerns about Elk populations would be much better addressed by closing, and ideally decommissioning, additional road miles in the project area. It appears that the Forest Service has grouped large gaps with road closures in

alternative three, and grouped small gaps with no road closures in alternative two. An ideal hybrid of these two alternatives would involve both road closures and gaps of no more ½ acre. This hybrid alternative would address concerns about excessively large gaps while improving elk habitat and having a negligible impact of timber volume. (Letter #2)

Comment #30: Gap cuts should not be in riparian areas. Are they included in riparian areas? Gap cuts in the riparian reserve is not consistent with several ACS objectives. (letter #5)

Comment #31: "Gaps" not be like mini-clearcuts. Gaps should instead be heavily thinned patches that retain some live and dead tree structure. Also, retain diverse early seral conditions in the gaps for longer by NOT planting any trees in the gaps except a few trees under-represented species that might not reseed naturally (e.g., cedar and white pine). We support the underburning of heavily thinned gaps to kill some of the trees which will create structure and mimic natural disturbance. (letter #3)

Comment #32: We recommend doing gaps with helicopters away from roads so that gaps don't end up being enlarged weed-infested landings renamed as gaps with easy access for hunters shooting big game from their vehicles. (letter #3)

Comment #33: The EA does not explain what these three-acre gaps will look like. Are there any leave trees? (letter #2)

Response to Comments #29-33: Gaps are proposed in the planning area as a means to promote complexity, both within a stand and across the landscape, by enhancing structural and vegetative species diversity. Gaps are a silvicultural tool than can be used to mimic natural disturbances that create openings in the forest canopy. A natural gap is formed by the death or fall of large branches, an individual tree or a group of trees that results in a canopy opening. The natural disturbance agents include insects, diseases, windthrow and fire.

There is no definitive size, amount, or intensity of gaps that can be applied to Douglas-fir/western hemlock forests in the PNW. Natural disturbance agents can create both fine-scale and coarse-scale disturbances resulting in an almost infinite continuum of gap sizes and intensities across a landscape.

The distinction between a gap and a clearcut cannot be defined by size alone. Both terms are used to describe regeneration methods designed to produce a new cohort of trees. It is the difference in the intent of the methods that shows the distinction. Clearcuts are created when trees are removed to reproduce a new stand. Stands are typically delineated according to a similarity in vegetation structure and species composition. Gaps are created within a stand when trees are removed to open up a portion of stand's canopy to meet management objectives. Gaps are openings within areas of similar vegetation structures or species composition.

Alternative 2 proposes ½-acre gaps to mimic small-scale natural disturbances. These gaps are proposed in units that would likely result in a higher mix of conifer species than currently exist. Plant associations for these units indicate a stand development that tends

to be more of a mix of Douglas-fir, western hemlock and western redcedar trees than currently exists.

Gaps in French Bug: Key Elements of the Silvicultural Prescription

Gap Sizes	Alternative 2	Alternative 3
1/2-acre	34 acres	21 acres
1-acre		7 acres
2-acre		20 acres
3-acre		3 acres
TOTAL	34 acres (3% of treated acres)	51 acres (4% of treated acres)

Alternative 3 proposes a range of gap sizes from ½ to 3 acres in size to not only mimic small-scale natural disturbances, but also provide larger openings for temporary big game forage habitat. Gaps larger than ½ acre are proposed in units that offer optimal forage habitat conditions such as south aspects, flatter slopes, and travel corridors. These larger gaps are not proposed as permanent forage habitat and therefore will be planted with conifers to ensure successful reforestation of a variety of tree species.

The only three acre gap included in this decision is in a flat area away from roads in unit #52—a location well suited to the creation of big game forage. Unit #52 is a 53 acre unit so the 3 acre gap is about 5% of the total unit.

The gaps also include gap planting and dominant tree/hardwood retention.

Small (1/2 acre) gaps will be planted with western redcedar and are expected to naturally seed in with western hemlock. 100 cedar will be planted in each gap (200 trees per acre). Due to expected heavy big game browsing, it is anticipated the approximately 50 of the cedar will survive over the next 20 years. The larger gaps will be planted at 200 trees per acre with a mix of tree species including, but not limited, to Douglas-fir, western redcedar and western white pine. Without planting, small gaps would likely regenerate to western hemlock.

The center of each small gap will be designated by marking and retaining at least one dominant tree in the center. This leave tree not only facilitates efficient sale layout but also provides the opportunity to develop large open grown trees with deep crowns and large limbs. In addition, all hardwoods within the stands are to be retained. The center of all 1, 2, and 3-acre gaps will be designated by marking and retaining at least three dominant trees in the center. Again, all hardwoods within the stands are to be retained.

Some less than one acre gaps may be located in riparian areas.

Soils

Comment #34: The benefits that active management can have on structural and compositional diversity do not necessarily come without cost to other resources. The impacts to soils from ground-based logging in particular can be significant and

permanent, even if the purpose of logging is to promote late-successional forest characteristics. When planning these thinning projects, the Forest Service should do everything it can to avoid damage to soils, and to aggressively mitigate damages when they are unavoidable. While we generally support variable density thinning, we still want to see it being done in the least ground-disturbing way possible. (letter #2)

Response to Comment #34: The French Bug Timber Sale was designed to minimize soil impacts. The EA discloses soil impact in Chapter 3, pages 77-86

Transportation/Logging Systems/Economics

Comment #35: If the objective of any project is to restore forest health and watershed functionality, the construction of any new permanent or temporary road should be avoided at all cost. The permanent impacts caused by temporary roads have been thoroughly documented and are well know by the Forest Service. It is particularly difficult to justify the road construction proposed in the French Bug EA, where several hundred feet of new roads are proposed to access small and isolated stands. For example, 250 feet of new roads are proposed to access unit 33 alone, which is all of 10 acres. 200 feet of new road is proposed to access unit 53, which is six acres. Under alternative 3, almost half of the total new roads – 3,000 feet - are proposed to access a single 59-acre unit. The construction of so many roads for so little in return makes no sense from either an economic or ecologic perspective. The construction of new roads in the North Santiam River watershed, whether permanent or temporary, also violates the Northwest Forest Plan, which prohibits increases in road densities within Key Watersheds. The construction of roads needs to be seriously reconsidered. (letter #2)

Comment #36: The much higher costs associated with road construction and reconstruction for Alt 3 disfavor this alternative. Since the roads are all to be decommissioned, there is no permanent benefit associated with this cost. (letter #5)

Comment #37: Minimize road construction, and avoid it altogether in unroaded areas. The EA says that temporary roads are necessary to implementation, but that ignores the fact that yarding can be done by helicopter or inaccessible areas can be deferred to provide dense forest habitat and contribute natural levels of suppression mortality for wildlife and carbon storage. (letter #3)

Comment #38: Avoid road construction. Where road building is necessary, ensure that the realized restoration benefits far outweigh the adverse impacts of the road. Rank new road segments according to their relative costs (e.g. length, slope position, soil type, ease of rehabilitation, weed risk, native vegetation impacts, etc.) and benefits (e.g. acres of restoration facilitated), then use that ranking to consider dropping the roads with the lowest ratio of benefits to costs. Do not allow log hauling during the wet season. Once you have determined the relative acres accessed per mile of road, you can take the analysis one step further, to determine the “effective road density” of each segment? In other words, extrapolate as if that much road were required to reach each acre of the planning area, then compare the resulting road density to standards for big game, cumulative hydrological impact, etc? For example, if a new spur road accesses thinning opportunities at a rate of 200 acres of forest per mile of road, then divide 640 acres per

section by 500 acres per mile to determine the effective road density of 3.2 mi/mi2. (letter #3)

Comment #39: Helicopter logging should be used instead of more road building. The negative aspects of helicopter logging are cost and noise; noise is temporary and can be seasonally restricted. Roads are also costly and a more permanent fixture of the landscape. (letter #5)

Comment #40: The 4-day (10%) reduction in helicopter logging days between the alternatives is not significant enough to make Alternative 3 preferable, nor is the 5% increase in logging/forest products jobs. These slight differences, as well as the 3.5% difference in mbf do not account for the great differences in Net Present Value and the Cost/Benefit Ratio. The Economics section should offer a better and more detailed explanation than it does. (letter #5)

Comment #41: The 703 Road should not be reconstructed. This road reconstruction is expensive and is environmentally damaging. (letter #5)

Response to Comments 35-41: A number of factors are considered when logging systems are developed for a timber sale. These factors include environmental considerations as well as economics. In some cases it may be prudent to build or reopen temporary roads to access the timber. In other cases, the environmental trade-off may be too great and helicopter logging may be needed. Alternative 3 looked to provide a good balance of environmental protection and economic feasibility.

Recreation

Comment #42: A wider no-harvest buffer should have been considered for the Humbug Flats Trail. (letter #5)

Response to Comment #42: A wider no-harvest buffer was considered for the Humbug Trail and a 75’ foot buffer was determined to be adequate to help protect the resources associated with the trail. The effects of timber harvest on this trail are disclosed in Chapter 3, p. 129.

Comment Letters

The comment letters listed here are directly addressed in the preceding response to comment. Five comments letters were received for the French Bug Timber Sale. All comments were read and addressed in the response to comment.

#1 Jacob Groves, American Forest Resource Council

#2 Daniel Kruse, Cascadia Wildlands Project

#3 Doug Heiken, Oregon Wild

#4 Bill Richardson, Rocky Mountain Elk Foundation

#5 Karen Sjogren

Appendix C – Errata to the Environmental Assessment

1. Chapter 3, p.111 – delete the last paragraph before "Conclusion." This paragraph is a discussion of the No Action Alternative.

2. Chapter 3, p.139 – The title of Table 3-40 should be (change in bold) "Amount of change in the **North Santiam** Viewshed and Planning Area – Cumulative Effects."

3. Chapter 3, p.42 – "Provision of **course** woody debris …" should read "Provision of **coarse** woody debris"

4. Chapter 3, p.62 – line four should read (new text in bold): "Suitable habitat within the home ranges of spotted owl activity center will **not** be affected."

5. Chapter 3, p.63 – line seven should read (change in bold): "Larger gaps will be burned resulting in **25** acres of gaps burned."

6. Chapter 3, p.63 – delete sentence in line ten: "Unit 12 has one more acre of gap than in Alternative 3."