



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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August 22, 2006

Memorandum

To: Tim Reuwsaat, District Manager, Medford District BLM, Medford, Oregon.

From: Craig Tuss, Field Supervisor, Roseburg Fish and Wildlife Office, Roseburg, Oregon.

Subject: Informal consultation on activities that may affect listed species on public lands administered by the Medford District Bureau of Land Management (District) during fiscal years 2006 through 2008.

This responds to your June 9, 2006, request for the U.S. Fish and Wildlife Service's (Service) written concurrence that some of the forest management activities proposed by the Medford District BLM (District) for FYs 06-08 may affect, but are not likely to adversely affect the threatened northern spotted owl (*Strix occidentalis caurina*) (spotted owl), marbled murrelet (*Brachyramphus marmoratus*) (murrelet) and designated critical habitat for the spotted owl. Those activities and the basis for your determination are discussed in your June 9, 2006, biological assessment (Assessment) (USDA/USDI 2006) and an August 2, 2006 amended Assessment. We received your request for the Service's concurrence on these findings on June 14, 2006. This response was prepared in accordance with the implementing regulations for section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536 *et seq.*) (Act), as amended.

This response is based on information provided in the amended Assessment; and in e-mail and phone discussions between Service and District staff.

CONSULTATION HISTORY

Many of the activities included in the subject proposed action were originally analyzed in a biological opinion issued by the Service on October 20, 2003 (USFWS 2003a).

Since 2003, the District and the Rogue River-Siskiyou National Forest (Forest) (collectively referred to as the Action Agencies) have revised their proposed action with respect to FY 06-08 activities. On June 14, 2006, the Action Agencies submitted a joint Assessment, dated June 9,

2006, on the revised action to the Service. Due to errors in that document, the Action Agencies made necessary corrections and submitted an amended joint Assessment to the Service on August 2, 2006.

On June 14, 2006, the Action Agencies also submitted a request to the Service for formal consultation on those proposed forest management activities for FY 06-08 described in the amended joint Assessment that may affect and are likely to adversely affect the spotted owl, murrelet, and designated critical habitat for the spotted owl and the murrelet. The Action Agencies requested the Service to issue separate biological opinions in response to their joint request. Those formal consultations have been completed.

A separate response has been prepared to the Forest's request for the Service's written concurrence that some of their proposed FY 06-08 activities, as described in the amended joint Assessment, may affect but are not likely to adversely affect the spotted owl, murrelet, and designated critical habitat for the spotted owl and the murrelet.

DESCRIPTION OF THE ACTION AREA

The Action Area has been defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402), and includes all public lands managed by both Action Agencies as well as all areas subject to increased ambient noise levels caused by activities associated with the proposed action.

DESCRIPTION OF THE PROPOSED ACTION

The proposed action is described in its entirety in the Assessment, which is herein incorporated by reference. Activity types and descriptions of those portions of the proposed action District biologists have determined *may affect, are not likely to adversely affect* the spotted owl or spotted owl critical habitat are included in Table 1 below.

Table 1: Proposed Actions.

Project Category	Estimated Scope—Acres, Land Use Allocations	
Habitat Modification		
Selective Harvest Fuels Reduction Projects Port Orford Cedar Sanitation Road Maintenance and Construction	NRF ¹ Degrade	Dispersal Degrade
	20,205	30,458
LSR ² subset	6,610	3,885
CHU ³ subset	10,280	6,860

Disturbance	
Vegetation management including silviculture	<p>Pre-commercial thinning, brushing, site preparation: 12,700 acres/year. Up to 50% in LSR. Some riparian thinning. Planting: 6,150 acres/year Fertilization: No more than 35,500 acres of fertilizer applied over the life of the BA (approximately 11,000 acres/year).</p> <p>Gopher control: 500 acres/year: trapping. Seed orchards involve treatments not used on all lands. These actions are covered under separate consultation. See BLM 2003-Draft ES Integrated Pest Management, Provolt Seed Orchard, Charles A. Sprague Seed Orchard. Medford BLM. June 2003. Could occur across all land use allocations. Matrix would be emphasized for planting and site preparation following timber sales. Treatments in LSR would be designed to improve LSR conditions. Some would occur in CHU.</p>
Watershed/ riparian restoration	<p>Stream structures: 15/ year. Culvert replacement/repair: 12 large fish passage culverts/ year; 50 cross-culverts/year.</p> <p>Riparian Restoration 100 acres/year.</p> <p>General wildlife enhancement/ year: Tree top blasting; snag development: 200 trees Brushing: 50 acres.</p> <p>Could occur across all land allocations, with emphasis in riparian reserves and LSR. Most, if not all work would avoid or reduce impacts through implementation of PDC⁴s and distance buffers from known sites (and occupied habitat). Some would occur in CHU.</p>
Recreation	<p>Facility development— construction or reconstruction could occur on up to 50 acres/year. Estimate no more than 10 projects per year.</p> <p>Trail maintenance/campgrounds: 100 miles and 50 acres per year of campgrounds and other facilities.</p> <p>Recreational projects/ year with noise disturbance potential. 30 year.</p> <p>New trail construction/year; 10 miles/ year.</p> <p>Could occur across all land use allocations. PDCs will be implemented to avoid/reduce impacts. Some trail maintenance must occur in occupied habitat during critical habitats due to elevation, and some disturbance may occur. This would be expected to be short duration and small areas. Some could occur in CHU.</p>

<p>Road maintenance and construction (outside of timbersales)</p>	<p>Up to 500 miles of road maintenance and repair a year. Some potential of hazard tree removal.</p> <p>Construction up to 10 miles per year.</p> <p>Hazard trees are reported in monitoring reports as acres degraded. Any greater impacts would be reported under tree harvest.</p> <p>Could occur across all land use allocations and CHU.</p>
<p>Mining and quarry operations</p>	<p>Notice-level operations: 10/year less than 30 acres total. Plan-level operations: 3 /year no more than 40 acres. Rock permits (existing quarries): 50/year; New quarries-potential of 1. Mine reclamations 1-5/year.</p> <p>Could occur across all land use allocations and CHU.</p>

¹Nesting, Roosting Foraging Habitat ² Late Successional Reserve; ³ Critical Habitat Unit; ⁴ Project Design Criteria,

Project Design Criteria

Project Design Criteria (PDC) are conservation measures developed to reduce impacts to listed species. Conservation measures may include implementation of seasonal restrictions that reduce impacts during critical breeding seasons, retention of known nest trees and/or restricting activities within a certain distance of know sites to reduce impacts of disturbance. Mandatory PDC will be applied to all activities associated with this proposed action. Recommended PDC will be incorporated during project implementation when practical. Detailed descriptions of the PDC are provided in Appendix A.

EFFECTS OF THE ACTION

Spotted Owl

Habitat modification that results in the degradation of spotted owl habitat occurs when activities reduce the quality of habitat while retaining the original function at the stand level post-project implementation. Degraded NRF habitat may have a canopy cover of at least 60 percent, and degraded dispersal habitat may have a canopy cover of at least 40 percent. Other habitat elements, such as snags, down wood, tree species and height diversity, and the presence of a hardwood element remain in affected stands post project implementation.

Spotted Owl NRF Habitat

Up to 20,205 acres of NRF habitat are likely to be degraded as a result of implementation of this proposed action. This degradation will occur among nine watersheds (hydrologically defined units) (watersheds), and will affect up to 1.6 percent of the extant NRF habitat (759,409 acres) within those affected watersheds (Table 2).

Table 2: Effects to NRF Habitat within the Action Area by Watershed.

Watershed	Acres of NRF Habitat	Acres of Treatment	Percent of Existing Habitat Degraded
Applegate	114,362	5,525	4.8
Bear	21,174	470	2.2
Cow Upper	45,108	4,825	10.7
Illinois	135,763	900	0.7
Klamath	17,565	655	3.7
Little Butte Creek	39,719	175	0.4
Rogue Lower Wild	105,072	2,275	2.2
Rogue Middle	98,362	5,180	5.3
Rogue Upper	179,492	200	0.1
Total	756,617	20,205	2.7

Specific projects scheduled to occur within NRF habitat include:

Road Maintenance/Hazard Tree Removal

Up to 800 acres of NRF habitat may be degraded as a result of road maintenance or hazard tree removal activities. These activities will be dispersed across the Action Area spatially and temporally, and will consist primarily of single tree removal along the District's extensive road system. The impacts of this activity will be insignificant to the nesting, roosting, foraging and dispersal of spotted owls within the action area because:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. Activities will be distributed both spatially and temporally across Action Area.

Fuels Reduction Projects

Up to 11,910 acres of NRF habitat will be degraded among five watersheds (Applegate, Bear, Rogue Lower Wild, Little Butte and Rogue Middle) as a result of fuels reduction projects. Treatments generally consist of the removal of ladder fuels up to 12 inches in diameter as well as a reduction of surface fuels 3" diameter or less. Effects to spotted owls associated with fuels reduction activities will be insignificant because:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. No more than 0.18 percent of NRF habitat will be degraded within the five affected watersheds.

Additionally, long term benefits to spotted owl habitat may be realized, as these treatments are designed to reduce the severity and rate of spread of large, stand-replacement fires capable of removing many acres of spotted owl habitat and common to the Action Area.

Port Orford Cedar Sanitation

Up to 1,500 acres of NRF habitat will be degraded within the Applegate watershed as a result of treatments designed to prevent the spread of *Phytophthora lateralis* (Port Orford Cedar root rot) generally consists of removal of infected or dead Port Orford Cedar trees. Port Orford Cedars rarely contain suitable nest structures for either spotted owls or murrelets. Effects to spotted owls as a result of the implementation of Port Orford Cedar sanitation activities within spotted owl NRF habitat will be insignificant to spotted owls for the following reasons:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. No more than 4.8 percent of NRF habitat will be degraded within the Applegate watershed.

Port Orford Cedar sanitation treatments are implemented as a protective measure to limit the spread of disease, benefiting the overall forest health of affected watersheds.

Selective Harvest

Up to 5,995 acres (1.3 percent of 453,569 acres) of NRF habitat will be degraded among four watersheds as a result of selective harvest treatments (Table 3). Light to moderate thinning would reduce the average canopy cover of the stand to no less than 60 percent. Selective harvest may affect NRF habitat by removing some horizontal and vertical structure. However, features such as nest trees, multi-layered canopies, and dead and down wood that support prey species habitat will remain within a given project area post-harvest, retaining the ability to provide for the nesting, roosting, foraging and dispersal of spotted owls.

Table 3: Effects to NRF Habitat due to Selective Harvest Treatments.

Watershed	Acres of NRF Habitat	Acres of treatment	Percent habitat degraded
Applegate	114,362	355	0.3
Illinois	135,763	2,250	1.7
Rogue Lower Wild	105,072	320	0.3
Rogue Middle	98,362	3,070	3.1
Total	453,559	5,995	1.3

Effects to spotted owls as a result of the implementation of selective harvest within spotted owl NRF habitat will be insignificant to spotted owls for the following reasons:

1. Canopy cover will be maintained at 60 percent.
2. decadent woody material, such as snags and down wood will remain post-treatment.
3. multi-canopy, uneven aged tree structure will remain post-treatment.
4. No more than 1.4 percent of NRF habitat will be impacted in any single watershed.
5. Treatments will be distributed both spatially and temporally throughout the six affected watersheds.

Effects to Late Successional Reserves (LSRs)

Management activities that may occur within LSRs have been designed to contribute to the development of late seral forest conditions. The amount of NRF habitat degradation within the affected LSRs is displayed in Table 4 below.

Table 4: Effects to LSR.

Late-Successional Reserve	Total NRF Habitat Acres	NRF Acres Degraded	Percent of NRF Habitat Degraded
RO223	33,804	4,055	12.0
RO224	8,370	300	3.6
RO249	40,244	1,300	3.2
RO258	33,641	1,255	3.7
Total	116,059	6,910	5.6

Effects to spotted owls as a result of degradation of NRF habitat within LSRs will be insignificant for the following reasons:

1. Canopy cover will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. Collectively, no more than 5.6 percent of NRF habitat will be degraded within the affected LSRs.
5. Treatments will be distributed both spatially and temporally throughout four of the twenty LSRs within the Action Area.
6. Plantations that currently function poorly as dispersal habitat will continue to function as dispersal and be on an accelerated trajectory to late seral forest conditions.

Spotted Owl Dispersal-only Habitat

Dispersal-only Habitat Removal

Up to 3,260 acres of dispersal-only habitat will be removed as a result of pine restoration, fuels reduction and selective harvest treatments. This amount of removal represents 0.4 percent of the available dispersal-only habitat within the seven affected watersheds (Table 5).

Table 5: Dispersal-only Habitat Removal by Watershed.

Section 7 Watersheds	2006 Dispersal-only Acres baseline	Dispersal-only Acres removed	Percent dispersal-only reduction
Applegate	192,550	1,230	0.6
Bear	21,285	280	1.3
Cow Upper	45,108	40	0.1
Illinois	221,170	382	0.2
Klamath	17,565	265	1.5
Little Butte Creek	43,691	50	0.1
Rogue Lower-Wild	138,272	3	0.002
Rogue Middle	98,362	1,010	1.0
Total	778,003	3,260	0.4

Effects to spotted owls as a result of the removal of this small amount of dispersal-only habitat will be discountable for the following reasons:

1. The amount of dispersal-only habitat removal represents a small percentage of the dispersal-only available to spotted owls within the affected watersheds.
2. Treatments will be distributed both spatially and temporally throughout the seven affected watersheds, diluting the effects to spotted owls.
3. Riparian Reserves, LSRs, wilderness areas, and other areas of timber retention are expected to provide for the movement of spotted owls throughout the Action Area.

Dispersal-only Habitat Degraded

Up to 30,458 acres of dispersal habitat will be degraded under the proposed action (Table 6). Dispersal habitat is expected to retain dispersal function post-project because canopy cover will not fall below 40 percent, a value widely used as dispersal function threshold (Thomas *et al.* 1990). Consequently, the effects of selective harvest in spotted owl dispersal habitat are not anticipated to appreciably diminish the ability of spotted owls to move throughout affected stands.

Table 6: Dispersal-only Habitat Degradation by Watershed.

Watershed	Acres of Dispersal Only habitat	Acres of Degrade	Percent Habitat Degraded
Applegate	192,550	10,120	5.3
Bear	21,285	320	1.5
Cow Upper	45,108	3,135	7.0
Illinois	221,170	6,848	3.1
Klamath	17,565	435	2.5
Little Butte	43,691	175	0.4
Rogue Lower Wild	138,272	1,120	6.1
Rogue Middle	98,362	8,305	8.4
Total	778,003	30,458	3.9

Selective Harvest

Selective harvest is planned within densely spaced, previously managed stands that average 40-60 years of age. These stands typically consist of little structural or tree species diversity and currently function as marginal dispersal habitat for spotted owls. While designed to promote tree growth in areas designated for timber harvest, these treatments would cause a short-term, indirect beneficial effect for spotted owls by accelerating the development of late-successional elements, such as large diameter trees, multiple canopy layers, and hunting perches in the long term. Additionally, post-project snag and coarse woody debris standards will help minimize impacts to spotted owl prey species that utilize these features. Effects to spotted owls as a result of the implementation of selective harvest treatments within spotted owl dispersal-only habitat will be insignificant to spotted owls for the following reasons:

1. Canopy cover will be maintained at 40 percent.
2. Decadent woody material, such as snags and down wood will increase as a result of treatments.
3. Very dense stands will be opened by thinning, thereby improving conditions for dispersing spotted owls.
4. Thinning dispersal habitat will reduce the rate of spread and intensity of wildland fires common to the Action Area.

Fuels Reduction Projects

Up to 20,080 acres of dispersal habitat will be degraded as a result of the implementation of fuels reduction projects among six watersheds (Applegate, Bear, Little Butte, Rogue Lower Wild, Rogue Middle and Rogue Upper). These activities usually consist of the removal of surface fuels 3 inches in diameter or less, and the removal of ladder fuels up to 12 inches in diameter as well as a reduction of surface fuels. Necessary components of spotted owl dispersal only habitat will be retained. Effects to spotted owls as a result of fuels reduction activities will be insignificant because:

1. Canopy cover within affected stands will be maintained at 40 percent.
2. Very dense stands will be opened by thinning, thereby improving conditions for dispersing spotted owls.

Additionally, long term benefits to spotted owl habitat may be realized, as these treatments are designed to reduce the severity and rate of spread of large, stand-replacement fires capable of removing many acres of spotted owl habitat and common to the Action Area.

Road Maintenance/Hazard Tree Removal

Up to 800 acres of dispersal habitat will be degraded within the nine affected watersheds as a result of road maintenance or hazard tree removal. These activities will be dispersed across the Action Area spatially and temporally, and will consist primarily of single tree removal along the District's extensive road system. The impacts of this activity will be insignificant to the nesting, roosting, foraging and dispersal of spotted owls within the action area because:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. Activities will be distributed both spatially and temporally across Action Area.

Port Orford Cedar Sanitation

Up to 1,600 acres of dispersal-only habitat will be degraded within the Applegate watershed as a result of treatments designed to prevent the spread of *Phytophthora laterallis* (Port Orford Cedar root rot) generally consists of removal of infected or dead Port Orford Cedar trees. Affected stands will retain the physical structures necessary to support dispersal of spotted owls. Effects to spotted owls as a result of Port Orford Cedar sanitation activities will be insignificant because:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. No more than 5.3 percent of dispersal-only habitat will be degraded within the Applegate watershed.

Port Orford Cedar sanitation treatments are implemented as a protective measure to limit the spread of disease, benefiting the overall forest health of affected watersheds.

Disturbance

Disturbance associated with Vegetation Management Activities, Watershed/Riparian Restoration, Recreation, Road Maintenance and Construction and Mining and Quarry Operations (as described in Table 1) will be limited by application of mandatory PDC (Appendix A) that impose seasonal restrictions during the critical breeding season, and/or restrict activities within disturbance threshold distances of unsurveyed suitable habitat or known spotted owl nest sites. Application of recommended PDC would further reduce potential impacts. Effects to spotted owls as a result of disturbance associated with the implementation of the projects described in this letter of concurrence will be insignificant because:

1. The Service has determined that adverse effects from disturbance are very unlikely to occur beyond the disturbance distances (USFWS 2003b) described in the PDC.
2. The Proposed Action, as implemented with mandatory PDC (Appendix A), is likely to avoid adverse disturbance impacts to spotted owls because activities will likely not cause spotted owls to flush from their nest, abandon nests, cause juveniles to prematurely fledge, interrupt foraging activity or result in increased predation due to less protection when the adult flushes during the critical nesting season (USFWS 2003b).

Spotted Owl Critical Habitat

NRF Habitat

The Assessment describes the degradation of up to 10,700 acres of spotted owl NRF habitat (4.8 percent of the 221,667 acres) among eight individual critical habitat units (Table 7).

Table 7: Effects to Spotted Owl Critical Habitat (NRF)

Critical Habitat Units	Total NRF acres	NRF Degrade	Percent of NRF Degraded
OR 32	35,246	5,205	14.76
OR 38	13,911	405	2.9
OR 62	24,187	75	0.3
OR 65	52,623	1,600	3.0
OR 67	49,499	75	0.2
OR 72	28,415	1,400	4.9
OR 74	12,772	1,675	13.3
OR 75	5,014	235	4.7
Total	221,667	10,670	4.8

Selective Harvest

Up to 4,060 acres of degradation of NRF habitat will occur as a result of selective harvest treatments (OR 32, OR 38, OR 65, OR 67, OR 74 and OR 75). These treatments will be insignificant to spotted owl critical habitat because:

1. Canopy cover will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. Treatments will be distributed both spatially and temporally throughout the eight affected CHUs.

Fuels Reduction Treatments

Up to 5,410 acres of NRF habitat will be degraded as a result of fuels reduction treatments (OR 32, OR 38, OR 62, OR 65, OR 72, OR 74 and OR 75). These treatments will be insignificant to spotted owl critical habitat because:

1. Canopy cover within affected stands will be maintained at 40 percent.
2. Very dense stands will be opened by thinning, thereby improving conditions for dispersing spotted owls.
3. Collectively, no more than 2.4 percent of the NRF habitat within the affected CHUs will be degraded as a result of fuels reduction projects.

Additionally, long term benefits to spotted owl habitat may be realized, as these treatments are designed to reduce the severity and rate of spread of large, stand-replacement fires capable of removing many acres of spotted owl habitat and common to the Action Area.

Port Orford Cedar Sanitation

Up to 1,200 acres of NRF habitat will be degraded within OR 72 as a result of treatments designed to prevent the spread of *Phytophthora laterallis* (Port Orford Cedar root rot) generally consists of removal of infected or dead Port Orford Cedar trees. Effects to spotted owl critical habitat as a result of Port Orford Cedar sanitation activities will be insignificant because:

1. Overall canopy cover of affected timber stands will be maintained at 60 percent.
2. Decadent woody material, such as snags and down wood will remain post-treatment.
3. Multi-canopy, uneven aged tree structure will remain post-treatment.
4. No more than 4.2 percent of the NRF habitat within CHU OR 72 will be degraded as a result of Port Orford Cedar sanitation treatments.

Dispersal-only Habitat

The Assessment described the additional degradation of up to 6,870 acres of spotted owl dispersal-only habitat within eight designated critical habitat units (Table 8).

Table 8: Effects to Dispersal-only Habitat within designated Critical Habitat Units.

Critical Habitat Units	Total Dispersal-only Habitat	Dispersal-only Degrade	Percent Degraded
OR 32	24,558	1,905	7.6
OR 38	23,669	130	0.6
OR 62	3,995	25	0.6
OR 65	65,784	1,650	2.5
OR 67	66,335	190	0.3
OR 72	40,807	1,950	4.8
OR 74	19,597	755	3.8
OR 75	9,531	265	2.7
Total	254,276	6,870	2.8

Selective Harvest

Up to 2,130 acres of degradation of dispersal-only will occur as a result of selective harvest treatments (OR 32, OR 38, OR 62, OR 65, OR 67, OR 72, OR 74 and OR 75) of 40-70 year old, densely stocked conifer plantations, or stands that have less than 60 percent canopy cover and lack habitat components such as tree height or tree diameter, large snags, and down woody material. Effects to spotted dispersal-only habitat within critical habitat units will be insignificant because:

1. Canopy cover will be maintained at 40 percent.
2. Decadent woody material, such as snags and down wood will increase as a result of selective harvest treatments.
3. Very dense stands will be opened by thinning, thereby improving conditions for dispersing spotted owls.
4. Thinning treatments within plantations that currently function poorly as dispersal habitat will improve the dispersal function for spotted owls.

5. Treatments will be distributed both spatially and temporally throughout the fourteen affected watersheds.
6. Thinning treatments will reduce the rate of spread and intensity of wildland fires common to the Action Area.
7. No more than 1.01 percent of the dispersal-only habitat within the affected CHUs (209,474 acres) will be degraded as a result of selective harvest activities.

Fuels Reduction Treatments

Up to 3,145 acres of dispersal-only habitat will be degraded as a result of fuels reduction treatments (OR 32, OR 38, OR 62, OR 65, OR 72, OR 74 and OR 75).

1. Canopy cover within affected stands will be maintained at 40 percent.
2. Very dense stands will be opened by thinning, thereby improving conditions for dispersing spotted owls.
3. Collectively, no more than 1.7 percent of the dispersal-only habitat within the affected CHUs (187, 941 acres) will be degraded as a result of fuels reduction projects.

Additionally, long term benefits to spotted owl habitat may be realized, as these treatments are designed to reduce the severity and rate of spread of large, stand-replacement fires capable of removing many acres of spotted owl habitat and common to the Action Area.

Port Orford Cedar Sanitation

Up to 1,400 acres of dispersal-only habitat will be degraded within OR 72 as a result of treatments designed to prevent the spread of *Phytophthora lateralis* (Port Orford Cedar root rot) generally consists of removal of infected or dead Port Orford Cedar trees. Affected stands will retain the physical tree structures necessary to support dispersal of spotted owls. Effects to dispersal-only habitat within critical habitat units will be insignificant because:

1. Canopy cover will be maintained at 40 percent.
2. Decadent woody material, such as snags and down wood will increase as a result of selective harvest treatments.
3. No more than 3.4 percent of the dispersal-only habitat within CHU OR 72 will be degraded as a result of Port Orford Cedar sanitation treatments.

Murrelets

Disturbance

The likelihood of disturbance to murrelets as a result of the implementation of the Proposed Action is small. No murrelets have been found on District administered lands. However, because suitable murrelet habitat does exist on the District, and these areas have not been surveyed to protocol standards, a chance exists that disturbance to murrelets may occur.

Disturbance caused by noise associated with management activities has the potential to effect up to 200 acres of un-surveyed suitable murrelet habitat within proximity to project implementation.

Disturbance associated with the implementation of the Proposed Action will be limited by application of mandatory PDC (Appendix A) that impose seasonal restrictions during the critical breeding season, and/or restrict activities within disturbance threshold distances of unsurveyed suitable habitat or known murrelet nest sites. Application of the recommended PDC would further reduce potential impacts. Projects that comply with Mandatory PDC related to disturbance will be insignificant to murrelets because:

1. The Service has determined that adverse effects from disturbance are very unlikely to occur beyond the disturbance distances (USFWS 2003c) described in the mandatory PDC.
2. The Proposed Action, with the application of the mandatory PDC, is likely to avoid adverse disturbance impacts to murrelets because activities will likely not cause murrelets to flush from their nest, abandon nests, cause juveniles to prematurely fledge, interrupt foraging activity or result in increased predation due to less protection when the adult flushes during the critical nesting season (USFWS 2003c).

Concurrence

The Service concurs that the above proposed action, as detailed in the Assessment and in the Description of the Proposed Action and Effects section of this letter, *may affect, is not likely to adversely affect* the spotted owl, spotted owl critical habitat, murrelet, and murrelet critical habitat. This concurrence is based on the fact that all projects will implement the standards and guidelines of the Northwest Forest Plan, comply with the District's Resource Management Plans (BLM 1995), and will incorporate the mandatory PDC described in Appendix A.

Incidental take is not expected and is not authorized for this consultation. Consultation on this action should be reinitiated if 1) new information reveals effects of the action that may affect listed species or designated critical habitat in a manner or to an extent not considered in this consultation; 2) the action is subsequently modified in a manner that causes an effect to a listed species or designated critical habitat that was not considered in this consultation; 3) and/or a new species or critical habitat is designated that may be affected by this project.

Because the proposed action is not likely to adversely affect spotted owls, murrelets or their designated critical habitats within the action area, it is not necessary to consider whether the action will jeopardize the species or appreciably diminish the value of their designated critical habitats to the recovery of the species.

This response is prepared in accordance with section 7(a)(2) and 7(c) of the Act, and concludes informal consultation on the project pursuant to 50 CFR 402. If new information or project modification reveals that the proposed actions may affect listed species in a manner or to the

extent not considered in your assessment, or if a new species is listed or critical habitat is designated that may be affected by the actions, work should be halted and consultation reinitiated immediately.

If any questions arise concerning the contents of this concurrence letter, please contact Cynthia Donegan at 541-957-3469, or myself at (541) 957-3470.

cc: Carole Jorgensen, BLM, Medford, OR (e)
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Appendix A: Project Design Criteria

Project design criteria (PDC) are measures applied to project activities designed to minimize potential detrimental effects to proposed or listed species. PDCs usually include seasonal restrictions and may also include clumping of retention trees around nest trees, establishment of buffers, dropping the unit(s)/portions, or dropping the entire project. Use of project design criteria may result in a determination of no effect for a project which would have otherwise been not likely to adversely affect. In other cases, project design criteria have resulted in a determination of not likely to adversely affect for a project which might have otherwise been determined to be likely to adversely affect. The goal of project design criteria is to reduce adverse effects to listed or proposed threatened or endangered species.

Physical impacts to habitat and disturbances to individual species will be reduced or avoided with PDC. Listed are species-specific project design criteria designed for the programmatic impacts discussed in the *Effects of the Action* section below. For each species, project design criteria have been separated into those that reduce or avoid habitat removal and those that reduce or avoid disturbance and/or disruption. Under the proposed action, the unit wildlife biologist may increase or decrease the disturbance distance-related project design criteria, based on site-specific conditions, subject to Level 1 concurrence.

Medford BLM and the Rogue River-Siskiyou National Forest retain discretion to halt and modify all projects, anywhere in the process, should new information regarding proposed and listed threatened or endangered species arise. Minimization of impacts would then, at the least, include an appropriate seasonal restriction; and could include clumping of retention trees around the nest trees, establishment of buffers, dropping the unit(s)/portions, or dropping the entire project.

The seasonal or daily restrictions listed below may be waived at the discretion of the decision maker if necessary to protect public safety (as in the case of emergency road repairs or hazard tree removal). Emergency consultation with the Service will then be initiated in such cases, where appropriate.

Should new information arise that significantly changes impacts to listed threatened or endangered species, the Action Agencies retain discretion to halt and modify all projects, anywhere in the process. Modifications could include an appropriate seasonal restriction; clumping of retention trees around the nest trees, establishment of buffers, dropping the unit(s)/portions, or dropping the entire project.

PDCs may be waived at the discretion of the decision-maker, if necessary to protect public safety (as in the case of emergency road repairs). The FWS will be notified of all such occurrences to determine if emergency consultation is required and to adjust environmental baselines if necessary. The Action Agencies will be prudent in evaluating public safety deviations. They will attempt to predict potential problems (such as road failures) such that remedies can occur during times and using methods that minimize impacts to the extent possible. In the event emergency consultation is initiated, the Action Agencies will act prudently and efficiently to complete or close consultation in a timely manner, preferably within 6 months or less of the emergency action.

There are two types of PDCs:

Mandatory: must be incorporated in all projects to reduce adverse affects (LAA) to listed species – required unless a specific exemption is mentioned in a “recommended” PDC and

Mandatory PDCs are incorporated in all appropriate planned actions. The effects determination reflects their implementation. Projects unable to incorporate mandatory PDCs will be analyzed under separate consultation.

Recommended: discretionary; incorporated in projects where appropriate to further reduce adverse affects.

In some cases, application of PDC may reduce the impact of the projects to listed species and may change the effects determinations (from LAA to NLAA, or from LAA or NLAA to NE). In all cases, effects determinations for projects have been made using applicable PDCs. The goal is to reduce the detrimental effects of any projects which “may affect” any endangered or threatened species. Some PDCs apply to multiple species although most PDCs apply to specific species. PDC are described by project type. The Plant PDC apply to all listed plants unless specifically mentioned.

This consultation effort updates some PDC that were used on projects covered by previous consultation efforts. These updated PDC will be incorporated into actions covered under previous consultations that have not yet been implemented, unless incorporating new PDC is not practical. In those cases, PDC in place under the previous consultation will apply.

The PDC in this consultation will be incorporated into those projects that will be implemented, in FY06-08.

Fire firefighter safety must be taken into account at all times when using the **PDC**. If implementation of PDC might cause human safety risks, the Action Agencies will respond to the human safety threat and will determine if that response is grounds for reconsultation.

Impacts	Species: Northern Spotted Owl
	Any of the following Mandatory PDC may be waived in a particular year if nesting or reproductive success surveys conducted according to the FWS-endorsed survey guidelines reveal that spotted owls are non-nesting or that no young are present that year. Waivers are valid only until March 1 of the following year. Previously known sites/activity centers are assumed occupied unless protocol surveys indicate otherwise.
Disturbance	1) Work activities (such as tree felling, yarding, road construction, hauling on roads not generally used by the public, prescribed fire, muffled blasting) that produce loud noises above ambient levels, or produce thick smoke that would enter the stand, will not occur within specified distances (see table below) of any nest site or activity center of known pairs and resident singles between 1 March and 30 June (or until two weeks after the fledging period) – unless protocol surveys have determined the activity center to be not occupied, non-nesting, or failed in their nesting attempt. The restricted zone is 1.0 mile for any unmuffled blasting. This distance may be shortened if significant topographical breaks or blast blankets (or other devices) muffle sound traveling between the blast and nest sites. March 1 – June 30 is considered the critical early nesting period; the action agency biologist has the option to extend the restricted season during the year of harvest, based on site-specific knowledge (such as a late or recycle nesting attempt). The boundary

	of the prescribed area may be modified by the action agency biologist using topographic features or other site-specific information. The restricted area is calculated as a radius from the assumed nest site (point). See Appendix F of the Assessment for a discussion of the rationale for the 30 June restriction date. See Fuels management PDC for direction regarding site preparation and prescribed fire.
Disturbance	2) If an active spotted owl nest or activity center is located within or adjacent to a project area, delay the project activity until September 30th or until an action agency biologist determines that young are not present. For a given situation, the “adjacent” distance is determined by the action agency biologist – if needed, contact Level 1 team for guidance. If any project activity is so close to a known or suspected owl site that the disturbance would flush a nesting spotted owl, curtail the project activity until September 30. The field biologist has the discretion to conduct surveys and determine fledging activity.
Fuels	3) Broadcast burning (for site preparation) will not take place within 0.25 mile of known active northern spotted owl nests between 1 March and 30 June (or until two weeks after the fledging period) unless smoke will not drift into the nest stand.
Vegetation management	Mandatory – Gopher Baiting (occurs only on Rogue River National Forest) (I) Strychnine baiting will not occur within 0.25 mile a of known spotted owl activity center. The following general criteria will be used with Gopher Baiting <ul style="list-style-type: none"> a. Experienced contractors will conduct field training of workers as needed in the identification and location of gopher burrows, application of bait, and safety procedures. b. The baiting projects will be supervised and administered by experienced personnel. c. All baiting will be underground. d. Any spilled bait will be completely removed from the ground surface and buried.
Restoration projects	Mandatory. To minimize the number of potential spotted owl or murrelet nest trees used for instream structures, only the following sources shall be used: (I) Trees already on the ground in areas where large woody material is adequate; (II) Trees lacking suitable nesting structure for spotted owls or murrelets or contributing to trees with suitable nesting structure, as determined by an action agency wildlife biologist.
Wildfire	Mandatory Whenever possible, protect known nest sites of any listed species from high

	intensity fire. Update Resource Information Book annually; incorporate new nests or sites as soon as possible.
Wildfire	Mandatory (I) From 1 March – 30 June noise disturbance should be minimized inside occupied stands and within 0.25 mile of the edge of these stands. In order to accomplish this objective, minimize repeated aircraft flights that are less than 1,500 feet Above Ground Level (AGL). Also, minimize the use of fire line explosives within 1 air mile of occupied stands during the protection period.
Wildfire	Light Hand Tactics or Minimize Impact Suppression Tactics (MIST) should receive consideration for use within the protection zones for northern spotted owls and murrelets.
Quarries	1) For active nest sites or unsurveyed suitable habitat within 0.25 mile of the quarry operation (1.0 mile for blasting), restrict operation of the quarry from March 1 through June 30 (unless protocol surveys demonstrate non-nesting). Recommended 2) For active nest sites or unsurveyed suitable habitat within 0.25 mile of the quarry operation, restrict operation of the quarry from March 1 through September 30 (unless protocol surveys demonstrate non-nesting).

Harassment distances from various activities for spotted owls.

Type of Activity	Distance at which spotted owl may flush or abort a feeding attempt
a blast larger than 2 pounds of explosives	1 mile
a blast of 2 pounds or less	120 yards
an impact pile driver, a jackhammer, or a rock drill	60 yards
a helicopter or a single-engine airplane	120 yards for small helicopters; 0.25 miles for Type 1 or 2 helicopters
chainsaws (hazard trees, precommercial and commercial thinning)	65 yards
heavy equipment	35 yards

Above-ambient noises further than these Table 11 distances from spotted owls are expected to have either negligible effects or no effect to spotted owls. The types of reactions that spotted owls could have to noise that the Service considers to have a negligible impact, include flapping of wings, the turning of a head towards the noise, hiding, assuming a defensive stance, etc. (USFWS 2003).

Marbled Murrelet

PDC apply to two different inland “belts.” Appendix H shows these two Areas. PDC deal with *removal/degradation* of habitat and *disturbance* of nesting murrelets.

Occasionally individual hazard trees are found which have not been surveyed for murrelet use and which have the potential to support a murrelet nest. If these trees are an immediate threat to human safety, they will be cut. Otherwise, these trees will be removed during the non-nesting season (16 September to March 31).

What is the minimum site (size/quality) where survey protocol will be applied? Guidance: Field assessments conducted to make the determination of habitat suitability are of vital importance to the conservation and protection of marbled murrelet breeding sites. Any stand with a residual tree component or small patches of suitable habitat should be considered potential nesting habitat, and surveyed to protocol. Any assessment of habitat must include a walk-through of every acre of the area that will be impacted by a project.

Brief Description of the two Areas (“bands”) (Appendix I): **Area A** = Area west of the line between the coastal Western Hemlock/Tanoak Zone and inland Mixed Conifer/Mixed Evergreen Zone; this area is the known range for marbled murrelet in SW Oregon. **Area B** = Area 6.5 miles (10 km) east of Area A (although Area B is outside the known range for this species, potential nesting habitat will continue to be surveyed in this “buffer” area, where projects may affect this potential habitat). No surveys for marbled murrelets are required on land outside of (east of) Areas A and B.

Impacts	Species: Marbled Murrelet
Habitat	(I) For Survey Areas A and B , if the project removes or degrades suitable habitat, the project must be surveyed to protocol (current Pacific Seabird Group two year protocol – to document presence/absence of murrelet). If it is not feasible to complete the two-year protocol, the FWS will be contacted on a case-by-case basis to discuss other means of insuring that potential nest trees are not impacted. The action agency has the option of not surveying suitable habitat and classifying these stands as “Occupied.” A “new” LSR must be established for any timber stand in Areas A or B that is determined to be or assumed to be occupied by marbled murrelet (per NWFP ROD, page C-10).
Disturbance	(II) For Survey Areas A and B work activities (such as tree felling, yarding, road and other construction activities, hauling on roads not generally used by the public, muffled blasting) which produce noises above ambient levels will not occur within specified distances (see table below) of any occupied stand or unsurveyed suitable habitat between April 1 – August 5. For the period between August 6 – September 15, work activities will be confined to between 2 hours after sunrise to 2 hours before sunset. See Fuels management PDC for direction regarding site preparation and prescribed fire.

Disturbance	(III) Clean up trash and garbage daily at all construction and logging sites. Keep food out of sight so as to not attract crows and ravens (predators on eggs or young murrelets).
Disturbance	(IV) Blasting (open air/unmuffled) – No blasting/pile driving activities 1 April through 15 September within 1.0 mile of occupied stands or unsurveyed suitable habitat. This distance may be shortened if significant topographical breaks or blast blankets (or other devices) muffle sound traveling between the blast and nest sites or less than 2 lbs of explosives are used. If so, then use described distance.
Disturbance	1) Recommended Delay project implementation until after September 15 where possible
Disturbance	2) Recommended Between 1 April and 15 September, concentrate disturbance activities spatially and temporally as much as possible (e.g., get in and get out, in as small an area as possible; avoid spreading the impacts over time and space).
Restoration projects	Mandatory To minimize the number of potential spotted owl or murrelet nest trees used for instream structures, only the following sources shall be used: (I) Trees already on the ground in areas where large woody material is adequate; (II) Trees lacking suitable nesting structure for spotted owls or murrelets or contributing to trees with suitable nesting structure, as determined by an action agency wildlife biologist.
Fuels	Mandatory (I) Burning would not take place within 0.25 mile of known occupied marbled murrelet sites, or unsurveyed marbled murrelet habitat between April 1 and August 6 unless smoke will not drift into the occupied site. (II) All broadcast and under-burning operations (except for residual “smokes”) will be completed in the period from two hours after sunrise to two hours before sunset. (IV) During helicopter operations, flights over suitable habitat will be restricted (helicopter should be at least 1,500 feet above ground level); if not possible, fly a minimum of 500 feet above suitable habitat (above canopy).
Wildfire	Mandatory Whenever possible, protect known nest sites of any listed species from high intensity fire. Update Resource Information Book annually; incorporate new nests or sites as soon as possible.
Wildfire	Mandatory (I) From 1 April - 5 August noise disturbance should be minimized inside occupied stands and within 0.25 mile of the edge of these stands. In order to accomplish this objective, minimize repeated aircraft flights that are less than 1,500 feet Above Ground Level (AGL). Also, minimize the use of fire line explosives within 1 air mile of occupied stands during the protection period.

	Light Hand Tactics or Minimize Impact Suppression Tactics (MIST) should receive consideration for use within the protection zones for northern spotted owls and murrelets.
Quarries	Mandatory 1) For any occupied stands or unsurveyed suitable habitat within 0.5 mile of the quarry operation, restrict operation of the quarry from April 1 to September 15. Agency biologists also have the discretion to modify the 0.5-mile zone depending on topography and the level of noise - what equipment will be present (crusher or dozer/ripper or only loading of existing stockpiled rock).
Quarries	1) For active nest sites or unsurveyed suitable habitat within 0.25 mile of the quarry operation (1.0 mile for blasting), restrict operation of the quarry from March 1 through June 30 (unless protocol surveys demonstrate non-nesting). Recommended 2) For active nest sites or unsurveyed suitable habitat within 0.25 mile of the quarry operation, restrict operation of the quarry from March 1 through September 30 (unless protocol surveys demonstrate non-nesting).

Type of Activity – Prescribed Distances for Marbled Murrelet	Zone of Restricted Operation
Blast of more than 2 pounds of explosive	1 mile
Blast of 2 pounds or less of explosive	360 feet
Impact pile driver, jackhammer, or rock drill	360 feet
Type III-IV Helicopter or single-engine airplane	360 feet
Type I or II Helicopter	0.25 miles
Chainsaws (hazard trees, tree harvest, etc.)	360 feet
Heavy equipment	360 feet

Wildland Fire - General PDC – All Species

- a. Resource Advisors/Environmental Specialists will advise Line Officers and Incident Commanders to minimize impact to listed species and their habitat during suppression activities.
- b. Information on species and habitat location will be available to fire staff through pre-suppression briefings, through maps showing areas of concerns (readily accessible through GIS), and pertinent species management plans, *i.e.*, bald eagle site management plans. With this information, fire staff can determine possible needs during initial attack, if the behavior of the fire dictates the need for emergency fire suppression action.
- c. Resource specialists, resource advisers, advisors/environmental specialists will give biological input to personnel in charge of fire suppression activities. The resource advisor/environmental specialist will work for the Line Officer and with the Incident Commander to relay biological concerns.
- d. Whenever possible, protect known nest sites of any listed species from high intensity fire.