

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs. 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = All Basins 12 Aug 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-03	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				5,051,868		
-Private, State and other Government				2,512,108		
-Federal Acres				2,539,760		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				352,740		
-Late Successional Reserves (not incl 100 ac owl LSRs)				878,407		
-Adaptive Management Areas				178,193		
-Administratively Withdrawn Areas				187,383		
-Riparian Reserves (Matrix and AMA Riparian acres only)				240,893	Unmapped Class IV streams counted as within Matrix	
-Matrix				702,144		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				435,687	205,705 (47%)	227,965 (53%)
-Total Spotted Owl Habitat - Suitable Acres (NRF) (* Unprotected = 278,034 acres combined timber sales-fires.)	914,432 (-13%)*	-101,766 (-10%)	-34,337 (-3%)	1,053,409	730,647 (69%)	322,762 (31%)
-Total Acres in Critical Habitat within All Basins				772,722	582,798 (75%)	189,924 (25%)
-Total Acres in Critical Habitat which is suitable (NRF)	356,651 (-9%)	-25,329 (-6%)	-9,005 (-3%)	390,985	304,070 (78%)	86,915 (22%)
4. SPOTTED OWL SITES - # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				305	247 (81%)	58 (19%)
-# Spotted Owl Sites (30-40% NRF)				143	76 (53%)	67 (47%)
-# Spotted Owl Sites (<30% NRF)				371	127 (34%)	244 (66%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				692,263	536,867 (76%)	155,396 (24%)
-Total Marbled Murrelet - Suitable Habitat (to 50 miles) [Suitable habitat known range = 66,726 (wi -1,639 Biscuit)]	280,543 (-13%)	-37,089 (-12%)	-3,075 (-1%)	320,707	238,263 (74%)	82,444 (26%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00			200	200 (100%)	0 (0%)
-Total Sites With MM Presence (not incl occupied sites)				486	Not Calculated	Not Calculated

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFS 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Applegate 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				471,329		
-Private, State and other Government				157,195		
-Federal Acres				314,134		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				16,626		
-Late Successional Reserves (not incl 100 ac owl LSRs)				40,318		
-Adaptive Management Areas				178,193		
-Administratively Withdrawn Areas				25,808		
-Riparian Reserves (Matrix and AMA Riparian acres only)				52,955	Unmapped Class IV streams counted as within Matrix	
-Matrix				234		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				55,707	14,953 (27%)	40,754 (73%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	114,362 (-9%)	-3,126	-8,895	126,383	48,980 (39%)	77,403 (61%)
4. SPOTTED OWL SITES - Total # Activity Center (Fed Land)				145	46 (32%)	99 (68%)
-# Spotted Owl Sites (>40% NRF)				34	19 (56%)	15 (44%)
-# Spotted Owl Sites (30-40% NRF)				26	11 (44%)	15 (56%)
-# Spotted Owl Sites (<30% NRF)				85	16 (19%)	69 (81%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				37,914	22,618 (60%)	15,296 (40%)
-Total Marbled Murrelet - Suitable Habitat (to 50 miles)	28,517 (>-1%)	0	-59 (>-1%)	28,576	20,363 (71%)	8,213 (29%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	0	N/A	N/A		
-Total Sites With MM Presence (not incl occupied sites)		0	N/A	N/A		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Bear Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				231,110		
-Private, State and other Government				182,593		
-Federal Acres				48,517		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				0		
-Late Successional Reserves (not incl 100 ac owl LSRs)				12,579		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				13,567		
-Riparian Reserves (Matrix and AMA Riparian acres only)				5,319	Unmapped Class IV streams counted as within Matrix	
-Matrix				17,052		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				5,795	2,476 (43%)	3,319 (57%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	21,174 (-1%)	-72	-39	21,285	14,405 (68%)	6,880 (32%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				22	22 (100%)	0
-# Spotted Owl Sites (30-40% NRF)				4	4 (100%)	0
-# Spotted Owl Sites (<30% NRF)				18	7 (39%)	11 (61%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				N/A		
-Total Marbled Murrelet - Suitable Habitat				N/A		
-Total Sites With MM Presence (not incl occupied sites)		N/A				

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WTRSHDS = Chetco/South Coast 12 Aug 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos BayBLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				382,849		
-Private, State and other Government				133,603		
-Federal Acres				249,246		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				99,639		
-Late Successional Reserves (not incl 100 ac owl LSRs)				79,805		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				20,294		
-Riparian Reserves (Matrix and AMA Riparian acres only)				9,917	Unmapped Class IV streams counted as within Matrix	
-Matrix				39,591		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				22,469	16,612 (74%)	5,857 (26%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	68,916 (-25%)	-23,245	-261	92,422	79,609 (85%)	12,813 (15%)
4. SPOTTED OWL SITES - Total # Activity Centers(Fed Land)				44	38 (86%)	6 (14%)
-# Spotted Owl Sites (>40% NRF)				28	25 (89%)	3 (11%)
-# Spotted Owl Sites (30-40% NRF)				12	9 (75%)	3 (25%)
-# Spotted Owl Sites (<30% NRF)				4	4 (100%)	0
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				144,736	117,027 (81%)	27,709 (19%)
-Total Marbled Murrelet - Suitable Habitat This Area is in the Known Range	32,871 (-5%)	-1,607 (-5%)	-261 (-1%)	34,639	30,940 (89%)	3,699 (11%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	58	58 (100%)	0		
-Total Sites With MM Presence (not incl occupied sites)		130	Not Calculated	Not Calculated		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Coquille/Sixes 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				864,757		
-Private, State and other Government				775,604		
-Federal Acres				89,153		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				8,366		
-Late Successional Reserves (not incl 100 ac owl LSRs)				57,321		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				4,772		
-Riparian Reserves (Matrix and AMA Riparian acres only)				3,708	Unmapped Class IV streams counted as within Matrix	
-Matrix				14,986		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				9,963	7,891 (79%)	2,072 (21%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	40,713 (0%)	n/a	-170	40,883	35,577 (87%)	5,306 (13%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)				24	19 (79%)	5 (21%)
-# Spotted Owl Sites (>40% NRF)				13	11 (85%)	2 (15%)
-# Spotted Owl Sites (30-40% NRF)				9	7 (78%)	2 (12%)
-# Spotted Owl Sites (<30% NRF)				2	1 (50%)	1 (50%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				55,304	51,252 (93%)	4,052 (7%)
-Total Marbled Murrelet - Suitable Habitat This Area is in the Known Range	18,370 (-1%)	0	-175 (-1%)	18,545	16,840 (91%)	1,705 (9%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	25	26 (100%)	0		
-Total Sites With MM Presence (not incl occupied sites)		130	Not Calculated	Not Calculated		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Cow-Upper 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				214,169		
-Private, State and other Government				133,775		
-Federal Acres				80,394		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				0		
-Late Successional Reserves (not incl 100 ac owl LSRs)				26,653		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				2,212		
-Riparian Reserves (Matrix and AMA Riparian acres only)				8,480	Unmapped Class IV streams counted as within Matrix	
-Matrix				43,049		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				23,971	9,710 (41%)	14,261 (59%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	43,657 (-2%)	n/a	-1,006 (-2%)	45,108	18,336 (41%)	26,772 (59%)
4. SPOTTED OWL SITES - Total # Activity Centers(Fed Land)				62	19 (30%)	43 (70%)
-# Spotted Owl Sites (>40% NRF)				9	3 (33%)	6 (67%)
-# Spotted Owl Sites (30-40% NRF)				14	2 (14%)	12 (86%)
-# Spotted Owl Sites (<30% NRF)				39	14 (36%)	25 (64%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				14,605	883 (6%)	13,722 (94%)
-Total Marbled Murrelet - Suitable Habitat (to 50 miles) This Area is not in Known Range	21,530 (-4%)	0	-862 (-4%)	22,393	4,418 (20%)	17,975 (80%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	0	N/A	N/A		
-Total Sites With MM Presence (not incl occupied sites)		1	N/A	N/A		

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SECTION 7 WATERSHEDS = Elk + 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				96,099		
-Private, State and other Government				47,741		
-Federal Acres				48,358		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				9,998		
-Late Successional Reserves (not incl 100 ac owl LSRs)				22,996		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				6,683		
-Riparian Reserves (Matrix and AMA Riparian acres only)				1,893	Unmapped Class IV streams counted as within Matrix	
-Matrix				6,788		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				5,386	4,452 (83%)	934 (17%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	22,533	n/a	0	22,533	19,661 (86%)	2,872 (14%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)				6	6 (100%)	0
-# Spotted Owl Sites (>40% NRF)				6	6 (100%)	0
-# Spotted Owl Sites (30-40% NRF)				0	0	0
-# Spotted Owl Sites (<30% NRF)				0	0	0
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				31,514	27,135 (86%)	4,379 (14%)
-Total Marbled Murrelet - Suitable Habitat This Area is in the Known Range	0	0	0	10,881	9,545 (88%)	1,336 (14%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	44	44 (100%)	0		
-Total Sites With MM Presence (not incl occupied sites)		105	Not Calculated	Not Calculated		

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SECTION 7 WATERSHEDS = Illinois Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				630,785		
-Private, State and other Government				119,253		
-Federal Acres				511,532		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				71,359		
-Late Successional Reserves (not incl 100 ac owl LSRs)				220,617		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				66,751		
-Riparian Reserves (Matrix and AMA Riparian acres only)				30,588	Unmapped Class IV streams counted as within Matrix	
-Matrix				122,217		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				44,394	28,477 (64%)	15,917 (36%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	135,772 (-32%)	-61,149	-2,907	199,828	158,266 (79%)	41,562 (21%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				49	38 (78%)	11 (22%)
-# Spotted Owl Sites (30-40% NRF)				18	13 (72%)	5 (28%)
-# Spotted Owl Sites (<30% NRF)				15	8 (53%)	7 (47%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				231,506	176,694 (76%)	54,812 (24%)
-Total Marbled Murrelet - Suitable Habitat (to 50 miles) This Area is not in Known Range; some in survey buffer	57,456 (-37%)	-33,248 (-36%)	-513 (-1%)	91,217	72,834 (82%)	18,383 (18%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	2	2 (100%)	0		
-Total Sites With MM Presence (not incl occupied sites)		5	Not Calculated	Not Calculated		

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SECTION 7 WATERSHEDS = Klamath-Upper 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				164,213		
-Private, State and other Government				99,211		
-Federal Acres				65,002		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				0		
-Late Successional Reserves (not incl 100 ac owl LSRs)				25,613		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				12,385		
-Riparian Reserves (Matrix and AMA Riparian acres only)				4,795	Unmapped Class IV streams counted as within Matrix	
-Matrix				22,209		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				7,978	3,002 (38%)	4,976 (62%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	16,820 (-4%)	n/a	-745	17,565	10,348 (59%)	7,217 (41%)
4. SPOTTED OWL SITES - Total # Activity Centers (FedLand)				18	14 (78%)	4 (22%)
-# Spotted Owl Sites (>40% NRF)				0	N/A	N/A
-# Spotted Owl Sites (30-40% NRF)				2	1 (50%)	1 (50%)
-# Spotted Owl Sites (<30% NRF)				16	13 (81%)	3 (19%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				N/A		
-Total Occupied Marbled Murrelet Sites		N/A				
-Total Sites With MM Presence (not incl occupied sites)		N/A				

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Little Butte 11 July 03 Ranger Dist/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				238,506		
-Private, State and other Government				126,026		
-Federal Acres				112,480		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				2,005		
-Late Successional Reserves (not incl 100 ac owl LSRs)				47,599		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				1,118		
-Riparian Reserves (Matrix and AMA Riparian acres only)				16,919	Unmapped Class IV streams counted as within Matrix	
-Matrix				44,839		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				10,334	2,846 (28%)	7,488 (72%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	39,719 (-7%)	-279	-3,693	43,691	25,291 (58%)	18,400 (42%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				5	3 (60%)	2 (40%)
-# Spotted Owl Sites (30-40% NRF)				15	8 (53%)	7 (47%)
-# Spotted Owl Sites (<30% NRF)				19	9 (47%)	10 (53%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				N/A		
-Total Occupied Marbled Murrelet Sites		N/A				
-Total Sites With MM Presence (not incl occupied sites)		N/A				

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WTRSHDS = Rogue Lwr-Lobster June 24, 2003 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				126,882		
-Private, State and other Government				55,783		
-Federal Acres				71,099		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				0		
-Late Successional Reserves (not incl 100 ac owl LSRs)				45,932		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				2,671		
-Riparian Reserves (Matrix and AMA Riparian acres only)				11,823	Unmapped Class IV streams counted as within Matrix	
-Matrix				10,673		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				8,611	6,836 (79%)	1,775 (21%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	31,076	n/a	0	31,076	27,050 (87%)	4,026 (13%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				11	10 (91%)	1 (9%)
-# Spotted Owl Sites (30-40% NRF)				2	2 (100%)	0
-# Spotted Owl Sites (<30% NRF)				2	2 (100%)	0
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				41,899	34,402 (82%)	7,497 (18%)
-Total Marbled Murrelet - Suitable Habitat This Area is in the Known Range	0	0	0	14,053	12,411 (88%)	1,642 (12%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	71	71 (100%)	0		
-Total Sites With MM Presence (not incl occupied sites)		115	Not Calculated	Not Calculated		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Rogue Lwr-Wild June 24, 2003 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				186,248		
-Private, State and other Government				14,577		
-Federal Acres				171,671		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				32,720		
-Late Successional Reserves (not incl 100 ac owl LSRs)				105,006		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				10,244		
-Riparian Reserves (Matrix and AMA Riparian acres only)				4,168	Unmapped Class IV streams counted as within Matrix	
-Matrix				19,533		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat - Capable Acres (not incl disp/suit)				22,309	16,927 (76%)	5,382 (24%)
-Total Spotted Owl Habitat - Suitable Acres (NRF)	105,073 (>-1%)		-315	105,388	90,448 (86%)	14,940 (14%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)				53	41 (77%)	12 (23%)
-# Spotted Owl Sites (>40% NRF)				44	35 (80%)	9 (20%)
-# Spotted Owl Sites (30-40% NRF)				4	4 (100%)	0
-# Spotted Owl Sites (<30% NRF)				5	2 (40%)	3 (60%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				72,240	65,187 (90%)	7,053 (10%)
-Total Marbled Murrelet - Suitable Habitat This Area is not in Known Range	65,867 (>-1%)	0	-308 (>-1%)	66,175	55,135 (83%)	11,040 (17%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	0	N/A	N/A		
-Total Sites With MM Presence (not incl occupied sites)		0	N/A	N/A		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Rogue-Middle 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				599,369		
-Private, State and other Government				353,845		
-Federal Acres				245,524		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				6,136		
-Late Successional Reserves (not incl 100 ac owl LSRs)				22,780		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				2,247		
-Riparian Reserves Matrix and AMA Riparian acres only)				39,351	Unmapped Class IV streams counted as within Matrix	
-Matrix				175,010		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat – Capable Acres (not incl disp/suit)				62,745	4,960 (8%)	57,785 (92%)
-Total Spotted Owl Habitat – Suitable Acres (NRF)	88,774 (-6%)	n/a	-6,237 (-6%)	98,362	24,934 (25%)	73,428 (75%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)				76	1 (1%)	75 (99%)
-# Spotted Owl Sites (>40% NRF)				5	1 (25%)	4 (75%)
-# Spotted Owl Sites (30-40% NRF)				18	0	18 (100%)
-# Spotted Owl Sites (<30% NRF)				53	0	53 (100%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				34,891	14,015 (40%)	20,876 (60%)
-Total Marbled Murrelet - Suitable Habitat (to 50 miles) This Area is not in Known Range	28,620 (-4%)	0	-1,318 (-4%)	29,938	11,487 (38%)	18,451 (62%)
-Total Occupied Marbled Murrelet Sites	Data through FY 00	0	N/A	N/A		
-Total Sites With MM Presence (not incl occupied sites)		0	N/A	N/A		

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Rogue-Upper 11 July 03 Ranger Dists/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				787,409		
-Private, State and other Government				312,262		
-Federal Acres				475,147		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				85,613		
-Late Successional Reserves (not incl 100 ac owl LSRs)				136,729		
-Adaptive Management Areas				N/A		
-Administratively Withdrawn Areas				15,865		
-Riparian Reserves (Matrix and AMA Riparian acres only)				50,977	Unmapped Class IV streams counted as within Matrix	
-Matrix				185,963		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat – Capable Acres (not incl disp/suit)				150,679	81,217 (54%)	69,462 (46%)
-Total Spotted Owl Habitat – Suitable Acres (NRF)	180,071 (-10%)	-1,168	-10,069	191,308	160,165 (84%)	31,143 (16%)
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)						
-# Spotted Owl Sites (>40% NRF)				77	72 (94%)	5 (6%)
-# Spotted Owl Sites (30-40% NRF)				19	15 (79%)	4 (21%)
-# Spotted Owl Sites (<30% NRF)				113	51 (45%)	62 (55%)
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)				N/A		
-Total Occupied Marbled Murrelet Sites		N/A				
-Total Sites With MM Presence (not incl occupied sites)		N/A				

Environmental Baseline Tables. Medford BLM, Rogue River & Siskiyou NFs 1. Protected = "large" land allocations with no programmed timber harvest (Wilderness, LSR, Riparian Reserves except intermittent, etc. Unprotected incl all Matrix, as well as Known Spotted Owl Activity Centers and other small "protected" areas)						
SECTION 7 WATERSHEDS = Smith 11 July 03 Ranger Dist/Resource Areas = SIS, ROR, Med/Coos Bay BLM	Changes from 96 Baseline			Baseline Acres 18Oct96 (BO 1-7-96-F-392)		
	New Total (% change)	Fires 96-03	Timber Sales 96-05	Total	Total Protected ¹ (+ % of Total)	Total Un-protected (+ % of Total)
1. Total Acreage within Sub-Basin, all Ownerships				58,143		
-Private, State and other Government				640		
-Federal Acres				57,503		
2. Land Allocations - Federal (hierarchal, no acres double-counted)						
-Congressionally Reserved Areas				20,278		
-Late Successional Reserves (not incl 100 ac owl LSRs)				34,459		
-Adaptive Management Areas				0		
-Administratively Withdrawn Areas				2,766		
-Riparian Reserves (Matrix and AMA Riparian acres only)				0	Unmapped Class IV streams counted as within Matrix	
-Matrix				0		
3. SPOTTED OWL HABITAT - Federal Land						
-Total Spotted Owl Habitat – Capable Acres (not incl disp/suit)				5,346	5,346 (100%)	0
-Total Spotted Owl Habitat – Suitable Acres (NRF)	6,186 (-65%)	-11,391	0	17,577	17,577 (100%)	0
4. SPOTTED OWL SITES - Total # Activity Centers (Fed Land)				2	2 (100%)	0
-# Spotted Owl Sites (>40% NRF)				2	2 (100%)	0
-# Spotted Owl Sites (30-40% NRF)				0	0	0
-# Spotted Owl Sites (<30% NRF)				0	0	0
5. MARBLED MURRELET (Fed Land)						
-Total Marbled Murrelet - Capable Acres (not incl suitable)	* = Siskiyou NF data not included			27,654	27,654 (100%)	0
-Total Marbled Murrelet - Suitable Habitat (to 50 miles) This Area is not in Known Range	2,056 (-52%)	-2,234 (-52%)	0	4,290	4,290 (100%)	0
-Total Occupied Marbled Murrelet Sites	Data through FY 00	0	0	0		
-Total Sites With MM Presence (not incl occupied sites)		0	0	0		

* Acres burned are more than baseline due to better information and finer scale used in fire analysis than 1996 baseline. Difference is not significant

APPENDIX B: Spotted Owl CHU Descriptions and 2006 Baseline for Action Area

(italics from USDI 1992 (Tweton))

Straight text is additional information from the Action Areas on these CHUs

State Overview

Oregon is central to the range of the northern spotted owl (Strix occidentalis caurina), maintains the stronghold of the subspecies, and plays a key role in its future recovery. Northern spotted owls, hereinafter called spotted owl or owl, are found throughout their historic range wherever suitable habitat presently exists. Owl sites are distributed throughout Oregon but occur primarily on lands under Federal ownership. Habitat quality and quantity within Oregon varies considerably from north to south, east to west, and given elevational gradients. All of the aforementioned factors affect a specific area's ability to support habitat and any associated spotted owl breeding pairs or territorial singles.

Physiographic Provinces

The differing climatic and geologic qualities of the region lead to a division of the northern spotted owl's range (Oregon, Washington, and California) into five principal physiographic provinces. The three physiographic provinces which occur within Oregon (Oregon Cascades, Coast Ranges, and Klamath Mountains) are discussed below. The Interagency Scientific Committee further divided the Cascades into an east and west portion. Evaluation of local habitat conditions, owl demographics, and geographic information, lead to further divisions to include: identifying the Columbia Gorge, Coast Ranges, and Santiam Pass areas of concern; and establishing three linkage areas within the Interstate-5 (I-5) area of concern (South Willamette-North Umpqua, Rogue-Umpqua, and Ashland portions). These divisions more accurately represent current information used in section 7 project review and the recovery planning process within Oregon. The resultant delineations establish the foundation for review of critical habitat and how the units interact and support one another over the continuum of the owl's range.

Land Ownership - Management

Within Oregon, the range of the spotted owl occurs primarily west of State Highway 97 to the Pacific Ocean. However, in the south central portion of the State, the range does extend east of Highway 97. Because of historical and ongoing habitat removal, the majority of existing spotted owl habitat is located on public-owned lands (State or Federal) in Oregon. The Bureau of Land Management (BLM) and U.S. Forest Service (USFS) comprise the major Federal landowners with six BLM Districts (Salem, Eugene, Roseburg, Medford, Coos Bay, and Lakeview) and eight National Forests (Siuslaw, Siskiyou, Rogue River, Mt. Hood, Willamette, Umpqua, Winema, and Deschutes) either totally, or in part, within the range of the northern spotted owl in Oregon. Additional scattered spotted owl pairs and associated habitat are found on Tribal lands of the Warm Springs and Grand Ronde Indian Reservations, Crater Lake National Park, Oregon Caves National Monument, and various Oregon State forests and parks.

The Tillamook, Clatsop, and Elliott State Forests, all found within the Coast Ranges province, contain the majority of State-owned owl habitat in Oregon. The 480,000-acre Tillamook State Forest of the northern Coast Ranges incurred large forest fires in 1933, 1939, and 1945. As a result, the majority of the forest stands are between 30 and 50 years old with several isolated older-forest patches; some of which are used by spotted owls. The 93,000-acre Elliott State Forest within the southern Coast Ranges currently contains approximately 60 percent in older

forests (90-140 years of age). The Warm Springs Indian Reservation, which lies along the eastern slope of the Oregon Cascades, is currently surveying their forested lands for spotted owls and are developing land management plans that will incorporate the spotted owl.

Important to maintaining present and future owl populations throughout their range are the previously identified areas of concern. Concurrent with these areas of concern are checkerboard land ownership patterns of mixed Federal and private. Areas of concern were identified because of the low number of associated owl pairs, the reduced amount of available dispersal habitat for spotted owls, and/or the existing degraded owl habitat quality and quantities, which in turn restrict linkage of owl habitat within and between physiographic provinces. The end result is the potential for isolation of entire provinces, sub-populations, or individual pairs along the Interstate 5, Columbia Gorge, Santiam Pass, and in the Coast Ranges areas of concern of Oregon. The quality and distribution of remaining habitat often correlates with the checkerboard ownership patterns with less habitat remaining on private and State lands than what occurs on Federally-owned lands. Private lands, although currently containing only scattered parcels of owl habitat and few remaining spotted owls, play an important role in maintaining and improving these linkage zones, by ensuring habitat continuity within and between provinces, which will augment the maintenance and future recovery of the subspecies.

State, private, and tribal lands have been excluded from this final rule to designate critical habitat for the northern spotted owl due to economic and other non-biological reasons. Similarly, some Federal lands have also been excluded from the August 13, 1991, proposal because of economic reasons. Exclusion of these lands from the final critical habitat designation may greatly reduce their expected contribution to the conservation of the owl, placing an even greater conservation responsibility on the remaining critical habitat designated on Federal lands. This is especially true for those biologically essential lands not designated in and around areas of concern and other areas of highly fragmented habitat. This may result in a lower threshold for adverse modification determinations than if the excluded lands had remained in the final designation of critical habitat.

Habitat Distribution

Approximately 9,172,528 acres of forested lands exist in western Oregon with just over 6.8 million and 2.3 million acres on USFS and BLM lands, respectively. Of these agency totals, an estimated 3,651,938 (39.8%) acres are spotted owl habitat of which 1,149,954 acres (31%) occur on BLM lands while the USFS estimates 2,501,984 (69%) acres of spotted owl habitat exists under their jurisdiction. An additional 192,000 acres of suitable habitat are estimated to occur in Oregon on State, Tribal, and other land ownerships. Data for private lands is scant but most indications show minimal remnants of scattered owl habitat parcels remaining on these lands.

Owl habitat in Oregon is widely distributed and highly fragmented with some provinces in worst shape than others in terms of owl habitat (quality and quantity). At the time of critical habitat designation, the Coast Ranges province has an estimated 22% (N= 581,500) of its forested acreage remaining as spotted owl habitat, followed by the Klamath Mountains province (Oregon portion) at 25% (N= 1,407,880) remaining, and 42% (N= 4,821,804) within the Oregon Cascades province.

Areas identified in the final rule as critical habitat were designated to provide essential nesting, roosting, and foraging habitat unless otherwise noted. By maintaining the associated habitat characteristics, the area will also provide for dispersal habitat of owls as well. It is important to note that designation of critical habitat incorporated the assumption that the forest matrix outside

of designated areas would be maintained with dispersal habitat characteristics; presently identified as "50-11-40 rule"¹.

II. WESTERN CASCADES

This province includes all forested lands in Oregon east of Interstate 5, north and east of the Klamath Mountains province, and west of the crest of the Cascades Mountains. The Columbia River forms the northern boundary with the southern boundary the California border.

Ownership: *The vast majority of the Western Cascades province consists of National Forest lands with BLM lands along the lower slopes to the west and south. Four National Forests (Mt. Hood, Willamette, Umpqua, and Rogue River) and four BLM Districts (Salem, Eugene, Roseburg, and Medford) occur all or in part within this province. The Eastern boundary of this province, the crest of the Cascades Mountains, bisects several federally reserved areas; Mt. Hood, Mt. Jefferson, Mt. Washington, Three Sisters, and Diamond Peaks Wilderness Areas, and Crater Lake National Park.*

Regional Importance: *Besides being the core of the owls range as far as habitat and population numbers, the Western Cascades province appears to be in the best condition, relative to the rest of the owl's range. The northern portion of this province includes the Columbia River Gorge National Scenic Highway and provides the link to the Washington Cascades across the Columbia Gorge area of concern. The southern half of the province shares the three linkage areas within the I-5 area of concern which connect this province with the Oregon Coast Ranges and Klamath Mountains provinces. Within the middle of the Western Cascades province on the Willamette National Forest, there occurs a zone of heavily harvested checkerboard ownership lands (private and Forest Service). Because of the concern for limiting intra-provincial movement and owl distributions, the Santiam Pass area of concern was identified.*

Population: *Populations remain moderately high in this province as does the amount of remaining habitat on Federal Lands. Some localized areas of low population occur on the (1) checkerboard ownership lands (primarily BLM) at lower elevations along the west flank of the mountains, (2) checkerboard Forest Service lands in the Santiam Pass area, and (3) the higher elevation forests near the Cascade crest.*

The north-south distribution of spotted owls through the central portion of this province is adequate, with the exception of the Santiam Pass area. The checkerboard ownership pattern in the Santiam Pass area has the potential to block movements between the north and south portions of the province. Distribution is spotty and limited on BLM lands of the west side and in high-elevation marginal forests. Some areas on the west are isolated from the rest of the province by intervening private lands with minimal owl habitat.

Habitat: *Quality and quantity of spotted owl habitat is relatively high in much of this province due to the delayed initiation of intensive harvest on Federal lands, with the following exceptions. In addition, the Service's analyses of habitat conditions by province indicate that dispersal may be seriously limited in the I-5 and Santiam Pass areas of concern.*

- (1) *BLM lands along the flanks of the mountains are heavily fragmented by harvest on Federal lands and checkerboard ownership patterns. Similar conditions occur on Forest Service lands in the Santiam Pass area and within the linkage area to the south between the Klamath Mountains and the Cascades provinces.*

¹ See Final Rule to Designate Critical Habitat for the Northern Spotted Owl for further discussion of the "50-11-40 rule".

- (2) *Higher elevation Douglas fir forests along the crest of the Cascades mountain range provide marginal habitat and are naturally fragmented by mountain hemlock/subalpine forests generally unsuitable for spotted owls.*

Connectivity Within and Between Provinces: *Suitable and dispersal habitat remain relatively abundant in the center of the province. Concern for dispersal through the core of the area is low with the exception of the Santiam Pass area, where checkerboard ownership patterns have resulted in reduced habitat and could eventually create a bottleneck for dispersal north and south. Movements on the east and west sides of the province are restricted by fragmentation and limited habitat.*

This province connects to the east side Cascade forests throughout the length of the Cascade province. Movement of spotted owls is probably limited to the lower elevation passes scattered along the crest. Connection to the Klamath Mountains province occurs south of Canyonville and in the Ashland portion of the I-5 Area of Concern. Connection to the Oregon Coast Ranges province occurs south of Eugene and Canyonville. Although there is concern for long term linkage with the Klamath Mountains and Oregon Coast Ranges provinces, the concern for complete isolation of the Oregon Cascades from all other provinces in the near-term is low. However, risk of separation from the Washington Cascades is high due to the limited amounts of Federal lands along the north side of the Columbia River Gorge in Washington. Similar concern exists for separation from the Oregon Coast Ranges province (see Oregon Coast Ranges section).

Potential for Catastrophe: *Extensive forest fires occur in the area, as witnessed in 1987 and 1991. The time between such large fires is generally long. Large storm events may result in windthrow of some stands and deterioration of others. Due to the large amounts of Federal lands, concern for the impact of catastrophic events in the province is low.*

Exclusion Process: *During the economic review and resultant balancing process of the August 13, 1991, critical habitat proposal, a large portion of what was excluded due to economic and non-biological reasons came out of the Western Cascades province. This is important to note because places an even more important conservation responsibility on those remaining designated lands. Review of projects for possible adverse modification or destruction of designated critical habitat in this region must ensure that continuous whittling away at critical habitat units in the subspecies' stronghold does not destabilize the province to the degree of creating a similar situation as that currently found in the neighboring provinces.*

Provincial Needs:

- o Maintain existing connectivity within the province and between the Oregon Coast Ranges, Klamath Mountains, and Eastern Cascades provinces.*
- o Improve connectivity with the Washington Cascades province in the vicinity of the Columbia River Gorge area of concern.*
- o Improve connectivity within the Western Cascades province in the vicinity of the Santiam Pass area of concern.*
- o Improve connectivity with the Western Cascades province in the vicinity of the Ashland portion of the I-5 area of concern.*

Critical Habitat Units

A total of twenty-nine critical habitat units (OR-9 through OR-38; excluding OR-32) occur within the Western Cascades province. Narratives of each of the associated units follows.

OR-30: Rogue River and Umpqua National Forests; Douglas and Jackson Counties

Critical habitat unit OR-30, which incorporates HCA O-15, consists of essential features of nesting, roosting, foraging, and dispersal habitat as identified by Forest Service suitable habitat and owl location maps and Forest Service biologist recommendation and encompasses the Rogue-Umpqua Divide Wilderness. Unit OR-30 provides an important link of owl habitat from Crater Lake National Park to units OR-29 and OR-28 to the west and northwest. This unit, along with the adjacent unit OR-34 to the south, is an important southern stronghold of essential nesting habitat in the core of the Western Cascades province. Although a large portion of the wilderness is suitable owl habitat, land within the Rogue-Umpqua Divide Wilderness was not proposed as critical habitat because it does not need special management or additional protection. The unit includes 4 unroaded areas within the Umpqua National Forest. Future adjustment of this unit further to the east near center of HCA will encompass an additional existing suitable owl nesting habitat and 9 known owl sites. Total post-exclusion acreage mapped for this unit equals 71,487 acres (which includes 0 private or State acres). All of the 119,776 Federal acres in this unit are managed by the Forest Service.

OR-30 is located on the Rogue River and Umpqua National Forests. Sixty-eight percent of the unit is within the Rogue-Umpqua Divide LSR. This unit abuts the Rogue-Umpqua Divide Wilderness and provides an important link from Crater Lake National Park to units OR-29 and OR-28 to the west and northwest. This unit, along with the adjacent unit OR-34 to the south, is an important southern stronghold of essential nesting habitat in the core of the Western Cascades Province.

OR-31: Roseburg District-BLM; Douglas County

Critical habitat unit OR-31 was originally proposed as the northeast portion of unit O-16 in the August 1991 proposal. As a result of the balancing process, unit OR-31 was designated with the intent of supporting essential nesting, roosting, and foraging habitat for spotted owls. Unit OR-31 consists of a checkerboard land ownership pattern which will limit the unit for providing large blocks of contiguous suitable nesting habitat. Located between units OR-29 and OR-32, this unit provides a stepping stone along the north eastern flank of the Rogue-Umpqua area of concern. The Service identified this area as one where past harvest practices, current habitat conditions, and land ownership patterns elevate the importance of maintaining areas of owl nesting habitat to link the Western Cascades, Coast Ranges and Klamath Mountains provinces. Unit OR-31 is extremely important for inter-provincial linkage in an area of range-wide significance. Total post-exclusion acreage mapped for this unit equals 2,329 acres (which incorporates 669 private acres). All of the 1,665 Federal acres within this unit are managed by the BLM. Of the 69,693 Federal acres, 98.3 percent is BLM-managed land and 1.7 percent managed by the Forest Service.

OR-33: Umpqua National Forest; Douglas County

Critical habitat unit OR-32 was greatly reduced through the final exclusion process due to non-biological reasons. The unit is to the east of unit OR-32 and provides the linkage from unit OR-34 to unit OR-32 along the southwest portion of the Western Cascades province. Unit OR-33, originally proposed as UNF-2, was designated to maintain and provide improved and essential nesting, foraging, roosting, and dispersal habitat. Unit OR-33 encompasses a large tract of existing roadless area and augments the link from the eastern end of the Rogue-Umpqua portion of the I-5 area of concern to the southern extension of the Western Cascades province. Lands to the east and west of this unit not designated as critical habitat, appear as unsuitable owl habitat on Forest Service maps. BLM checkerboard land ownership occurs to the south, east, and west of this unit which could limit the ability of unit OR-32 in reaching its full potential of providing

large contiguous blocks of suitable nesting habitat. Total post-exclusion acreage mapped for this unit equals 5,806 acres (which incorporates 165 private acres). All of the 5,641 Federal acres in this unit are managed by the Forest Service.

OR-34: Medford District-BLM; Jackson County

Critical habitat unit OR-34 contains the original HCA O-17 and consists of checkerboard (primarily BLM and private) land ownership patterns. Unit OR-34 was designated to maintain the essential nesting, roosting, foraging, and dispersal habitats found in this region of high fragmentation. Total post-exclusion acreage mapped for this unit equals 66,694 acres (which incorporates 19,172 private acres and 2 State acres). Of the 47,520 Federal acres, 63.1 percent is BLM-managed land and 36.9 percent managed by the Forest Service.

OR-34 is located on the Medford District BLM and Rogue River NF. Seventy-four percent of the unit is within the Elk Creek and Lookout Mt/Black Butte LSRs. This unit was designated to maintain suitable and dispersal habitat in this area of high fragmentation, due primarily because of land ownership patterns. This CHU should provide north-south and east-west linkage from the Klamath/Siskiyou to the Western Cascades Provinces. The 2002 Timber Rock Fire occurred in this CHU; 1.198 acres of suitable habitat for spotted owls was burned.

OR-35: Rogue River National Forest; Jackson and Klamath Counties

Critical habitat unit OR-35 consists of essential nesting, roosting, foraging, and dispersal habitat. The unit was originally proposed as unit O-18 because it includes HCA O-18. The region around unit OR-36 is extremely important for maintaining a range-wide distribution of owls and their habitats because it provides the single link of critical habitat from the southern end of the Western Cascades province south to unit OR-37 toward the Klamath Mountains province. This unit leads to the critical habitat "bottleneck" of the Ashland Area of Concern. Unit OR-35 abuts the southwest edge of Crater Lake National Park and the western edge of the Sky Lakes Wilderness Area. Both the wilderness and national park are primarily high elevation non-habitat but do contain some suitable habitat. Since these land designations are not in need of special management considerations or protection at this time, they were not designated as critical habitat. Total post-exclusion acreage mapped for this unit equals 68,899 acres (which incorporates 2,116 private acres). All of the 66,775 Federal acres in this unit are managed by the Forest Service.

OR-35 is located on the Rogue River National Forest. Seventy-six percent of the unit is within the Middle Fork LSR. This unit provides the single link from the southern end of the Western Cascades Province south to unit OR-37 toward the Klamath Mountains Province. This unit also leads to the bottleneck of the Ashland Area of Concern. The unit abuts the southwest edge of Crater Lake National Park and the western edge of the Sky Lakes Wilderness. Both of these areas are primarily high elevation non-habitat.

OR-36: Medford District-BLM; Jackson County

Critical habitat unit OR-36 provides a "stepping Stone" link of nesting habitat along the southern end of the Western Cascades province, thereby assisting in habitat linkage to the south and the Klamath Mountains province. Unit OR-36 provides an important east-west link between critical habitat units OR-34 and OR-35 and also supports the north-south continuum of owl habitat within the Western Cascades province. Unit OR-36's placement helps to reduce the "bottleneck" of critical habitat just north of the Ashland area of concern. An area of limited habitat potential along the Rogue River corridor and associated McCleod Reservoir separate units OR-36 and OR-35 along the southern edge of the Western Cascades province. Total post-exclusion acreage mapped for this unit equals 10,348 acres (which incorporates 2,862 private acres). Of the 7,487 Federal acres, 91.5 percent is BLM-managed land and 8.5 percent managed by the Forest Service.

OR-36 is located on the Medford District BLM. No LSR allocation is within this unit. This unit provides an important link along the southern end of the Western Cascades Province, thereby assisting in the connectivity to the south and the Klamath Mountains Province. This unit provides east-west linkage to OR-34 and OR-35, and supports the north-south linkage for the Western Cascades Province. The placement of this unit helps to reduce the bottleneck just north of the Ashland Area of Concern. An area of limited habitat potential is along the Rogue River corridor and associated McCloud Reservoir, which separates units OR-35 and OR-36.

OR-37: Medford District-BLM and Rogue River and Winema National Forests; Jackson and Klamath Counties (also see Eastern Cascades)

Critical habitat unit OR-37 straddles the boundary between the Western and Eastern Cascades. The unit, originally proposed as O-19 because it incorporates HCA O-19, was designated as critical habitat because of its essential nesting, roosting, foraging, and dispersal habitat. Unit OR-37 provides the single most important "stepping stone" of critical habitat which links the Oregon Cascades to the Klamath Mountains province across the South Ashland portion of the I-5 area of concern (to OR-38). The Service identified this as one of the areas where past harvest practices, current habitat conditions, and land ownership patterns elevate the importance of maintaining areas of owl nesting habitat linking the Western/Eastern Cascades and the Klamath Mountains provinces. This unit also provides the only link toward the north into the Oregon Cascades and critical habitat units OR-8 (Eastern Cascades province) and OR-35 (Western Cascades province). Unit OR-35 abuts the Mountain Lakes Wilderness to the east which was not designated as critical habitat since the wilderness is not in need of special management considerations or protection at this time. By straddling the crest of the Cascades, Unit OR-37 plays a pivotal role in east-west connectivity of owl nesting habitat in the southern Cascades Mountains. Similarly, this unit provides a key link from Oregon to California south of Highway 66. Checkerboard land ownership patterns of this unit compound the problem of trying to maintain and improve suitable owl habitat in this area of regional importance. The vast majority of Bureau lands (found in the southern and western portions of this unit) have been altered once in the past. Total post-exclusion acreage mapped for this unit equals 118,132 acres (which incorporates 13,621 private acres). Of the 104,511 Federal acres, 28.7 percent is BLM-managed land and 71.3 percent managed by the Forest Service.

OR-37 is located on the Medford District BLM, the Rogue River, and Winema National Forests. Eighty-one percent of the unit is located within the Dead Indian LSR. This unit provides the single most important link connecting the Oregon Cascades Province to the Klamath Mountains Province across the south Ashland portion of the I-5 Area of Concern. By straddling the crest, this unit provides an important east-west connectivity for the southern Oregon Cascades. This unit also provides the only link to the north in the Oregon Cascades, and is the key link from Oregon to California south of Highway 66. THIS SHOULD GO AWAY—INCORRECT info from Tweton DRAFT. Use Italicized.

OR-38: Medford District-BLM; Jackson County

Unit OR-38 provides, along with unit OR-37, the sole link between the Western Cascades and the Klamath Mountains provinces. Unit OR-38 makes up the majority of this connection between the two provinces across the Ashland portion of the I-5 area of concern. This area of concern was identified by the Service due to past harvest practices, current habitat conditions, and land ownership patterns, thereby elevating the importance of maintaining suitable nesting, roosting, foraging, and dispersal habitat. Unit OR-38 is connected to unit OR-76 to the southwest, thereby giving the impression that critical habitat is continuous between the Cascades and Klamath Mountains province across the area of concern. One must realize that, at best, only 50% of this

area is under some form of Federal management since almost the entire area is checkerboard BLM and private land ownerships. Unit OR-38 was designated to maintain and improve upon existing essential nesting, roosting, foraging, and dispersal habitats located within this area of regional importance; and maintain and improve owl clusters in a key area of owl distribution, the core of the Ashland portion of the I-5 area of concern. Total post-exclusion acreage mapped for this unit equals 60,642 acres (which incorporates 19,272 private and 42 State acres). All of the 41,328 Federal acres within this unit are managed by the BLM.

OR-38 is located on the Medford District BLM. Fifty-two percent of the unit was located within the Cascade-Siskiyou National Monument. This unit provides the sole link between the Western Cascades and the Klamath Mountains Provinces. This unit makes up the majority of the connection between the two Provinces across the Ashland portion of the I-5 Area of Concern. This area is of concern because of past management practices, ownership patterns and current habitat conditions. The **Cascade-Siskiyou National Monument** is in development of a management plan separate from the NWFP, but which incorporated PDCs. Management in the monument will be designed to enhance and restore ecological values, including owl habitat. It will be removed from the Medford BLM timber base.

IV. KLAMATH MOUNTAINS

This province includes mountainous areas from the Coquille River (near State Highway 42) and the South Umpqua River drainage in southwestern Oregon south to the inner California coast ranges of the Mendocino National Forest. Interstate 5 establishes the eastern and the Pacific Ocean the western boundary of this province. Only that portion of the Klamath Mountains province located within Oregon will be addressed herein (see California narratives for additional documentation). Included in the Oregon portion of this province are critical habitat units OR-62 through OR-76.

Ownership: *The Klamath Mountains province straddles the Oregon-California boarder with approximately half located in each state and includes both areas of checkerboard ownership and areas of extensive Forest Service ownership. Oregon's Siskiyou (entirely) and Rogue River (southern half) National Forests, and BLM's Roseburg (southwest portion), Coos Bay (southern portion), and Medford (south and west two-thirds) Districts comprise the majority of this province. Within Oregon, The Klamath Mountains province includes all or a part of 5 counties; Coos, Curry, Douglas, Jackson, and Josephine. Two major wilderness areas exist in the northwest portion of this province (Wild Rogue and Kalmiopsis Wilderness Areas).*

Regional Importance: *The Klamath Mountains province provides the necessary link from Oregon's Coast Ranges and Cascades provinces to the south into California. The north western portion of this province provides the necessary link to the Oregon Coast Ranges province while the north easterly portion of the Klamath Mountains province in Oregon provides a similar tenuous link but to the southern extremes of the western Oregon Cascades. Two "areas of special concern" exist in part within this province; all of which are associated with interprovincial linkages. They are: the two-fold linkage that ties the Klamath Mountains province to the Coast Ranges through the Siskiyou National Forest and Medford District (BLM) and the southern half of the connection between the Klamath Mountains province and the Western Cascades through the Rogue-Umpqua portion of the I-5 area of concern (by way of the Medford District, BLM); and the link to the Oregon Cascades across the Ashland portion of the I-5 area of concern, via the Rogue River National Forest and Medford District.*

Provincial Concerns: *The Klamath Mountains province consists of approximately one-third of the owls' current range. The Oregon half of the Klamath Mountains province plays an integral role in maintaining a well distributed population of spotted owls throughout its range. It is this*

land base that provides the continuum of owls and owl habitat linking the Coast Ranges and Cascades of Oregon south to California. This tenuous connection becomes quite evident when reviewing the "hour-glass" linkage of owl habitat to the Western Cascades province across the Ashland portion of the I-5 area of concern and the similarly restrictive link to the Oregon Coast Ranges province to the northwest. In addition, some areas of the southern Klamath province have natural limitations in their ability to achieve suitable nesting habitat due to microclimate, such as those often found on south facing slopes in this region. To maintain connectivity from the northern 2/3 of the owl's range with the California portion, areas of suitable nesting habitat must be maintained and re-established across the interprovincial linkage zones (Rogue-Umpqua and Ashland portions of the I-5 area of concern). To further recovery, maintenance of, and an improvement in, the inter-provincial connections between this province and the Oregon Coast Ranges to the northwest and the northeastern link to the Western Oregon Cascades is required.

Connectivity Within and Between Provinces: Connectivity within that portion of the province in Oregon is somewhat weak. This is particularly true in the fragmented checkerboard lands of the BLM's Roseburg and Medford Districts. An exception to this statement is the Ashland watershed which, for water quality purposes, has experienced much less habitat destruction through timber harvest operations than the surrounding area.

Due to the fragmented condition of the Roseburg and Medford Districts at the north end of the Klamath Mountains province, connectivity to the Oregon Coast Ranges and the Western Oregon Cascades provinces is somewhat tenuous. A similar situation within the northern portion of this province occurs from east to west, where land ownership patterns exacerbate a highly fragmented condition of owl habitat. In addition, the area experiences a regular occurrence of fire which may be compounded by the effects of the current five-year drought. Forest fires within the past 5 years, some along the boarder of Oregon, have significantly altered spotted owl habitat within the province. Insect mortality is increasing throughout this region and also adversely affecting spotted owl habitat.

Population: Provincially speaking, numbers and density of spotted owls are relatively high in the range of the subspecies, and the population is generally well distributed. However, a long-term demographic study in the central portion of the region (Six Rivers National Forest, California) has shown considerable immigration and lack of site fidelity among adult spotted owls. This observation indicates that historical and continuing losses of habitat may be disrupting spotted owl populations. Demographic studies centered on BLM's Medford and Roseburg Districts also show annual declines for banded adult female spotted owls. In particular, the Medford study which is found primarily in the Klamath province, found significant declines in the territorial adult female population from 1986-1991.

Habitat: In the northern portion of the province, BLM and private lands occur in checkerboard ownership patterns, and suitable habitat is highly fragmented. Historic harvest levels have been high in much of this region, and habitat decline was extensive until implementation of the Interagency Scientific Committee (ISC) strategy and the listing of the subspecies. In some areas, harvest levels remain high. Within the region there are mountainous areas typically dissected by higher elevation ridgetops which, when compounded by the preponderance of serpentine soils within this province, create a naturally fragmented condition of the available owl habitat. One area of large contiguous habitat within this province coincides with the Ashland watershed which provides water for the city of Ashland.

Conservation Objectives: Conservation measures for the province should include protection of owl sites in areas of low density and areas of high habitat fragmentation (natural or human-caused). Well-distributed and well-connected population clusters should be developed and maintained. Maintenance of resident spotted owls to aid in establishing stable breeding clusters is recommended. The quality and quantity of spotted owl habitat should be improved and fragmentation reduced within critical habitat units to establish large blocks of nesting habitat. These units should be connected to each other by maintaining owl dispersal habitat outside of critical habitat units. Inter-provincial connectivity should be improved to ensure adequate

linkage to the Coast Ranges and Cascades provinces across the previously identified areas of concern. A multi-species approach to habitat conservation should be incorporated wherever possible (see **Other Species** section above).

Critical Habitat Units

A total of sixteen critical habitat units (CHU) occur within the Oregon Klamath Mountains province. All following CHUs were established to develop and maintain spotted owl nesting habitat. Narratives for CHUs OR-32, OR-62 through OR-76 for the Klamath Mountains province follows:

OR-32: Medford and Roseburg Districts-BLM and Umpqua National Forest; Douglas, Josephine, and Jackson Counties

Critical habitat unit OR-32 incorporates HCA O-16 and consists of essential nesting, foraging, roosting, and dispersal habitat. Unit OR-32 coincides with the eastern half of the Rogue-Umpqua area of concern which provides an essential link in the band of critical habitat units connecting the Western Cascades province with the southern portion of the Coast Ranges and northern end of the Klamath Mountains provinces. Unit OR-32 provides the single link from the Western Cascades province to the Klamath Mountains province and associated area of concern. The Rogue-Umpqua area of concern, as does Unit OR-32, consists primarily of checkerboard BLM, Forest Service, and private land ownership. The Service identified this as one of the areas where past harvest practices, current habitat conditions, and land ownership patterns elevate the importance of maintaining areas of owl nesting habitat to link the Western Cascades, Coast Ranges and Klamath Mountains provinces. This critical habitat unit includes areas not only important for linkage between provinces, but also areas which help maintain intra-provincial connectivity; such as to units OR-31 and OR-33. The majority of unit OR-32 is technically located within the Klamath Mountains province with just the western edge of the unit crossing I-5, and the eastern edge abutting the Western Cascades province. The southwestern extension of this unit is established to help maintain and assist in developing suitable nesting habitat along this province's western edge. Total post-exclusion acreage mapped for this unit equals 113,346 acres (which incorporates 43,637 private acres and 17 State acres). Of the 69,693 Federal acres, 98.3 percent is BLM-managed land and 1.7 percent managed by the Forest Service.

OR-32: Thirty-seven percent of this CHU is within the Cow Creek LSR. This unit coincides with the Rogue-Umpqua Area of Concern, which provides an essential link in connecting the Western Cascades Province with the southern portion of the Coast Ranges and northern end of the Klamath Mountains Province. This unit provides the single link from the Western Cascades Province to the Klamath Mountains Province and associated Area of Concern. The land ownership patterns elevate the importance of maintaining areas of owl nesting habitat to link the Western Cascades, Coast Ranges and the Klamath Mountains Provinces.

OR-62: Roseburg and Medford Districts-BLM; Douglas County

Critical habitat unit OR-62 was established to maintain essential nesting, roosting, and foraging habitat in an area highly fragmented and consisting of checkerboard BLM and private ownership. This unit supports the "hinge pin" by providing a link from the Klamath Mountains province to the Coast Ranges province and of similar importance for establishing the link from those two provinces through the Rogue-Umpqua portion of the I-5 area of concern, with units OR-63 and OR-32 and onto the Western Cascades province. The Service identified areas of concern where due to past harvest practices, current habitat conditions, and land ownership patterns, the importance of maintaining suitable nesting habitat and areas for owls to move between provinces has escalated. This critical habitat unit includes not only areas where linkage between physiographic provinces are of concern, but also areas with known owl pairs within a region of relatively low abundance of suitable owl habitat. The northern extension of this unit is

established to help maintain and assist in developing suitable nesting habitat. The majority of this unit consists of checkerboard BLM and private ownership. Through the exclusion process of the August 13 proposal, critical habitat unit OR-62, which incorporates habitat conservation area (HCA) O-26, was modified into two designated units; OR-62 and OR-63. Total post-exclusion acreage mapped for this unit equals 99,872 acres (which incorporates 51,130 private acres). All of the 48,542 Federal acres in this unit are managed by the BLM.

OR-62 is located on the Roseburg and Medford District BLM. No LSR allocation is within this unit. This unit provides the link from the Klamath Mountains Province to the Coast Ranges Province, and establishes the link from those two Provinces through the Rogue-Umpqua portion of the I-5 Area of Concern. This unit was designated because of the current habitat conditions, land ownership patterns and past management practices. This unit includes not only areas where linkage between physiographic provinces are of concern, but also areas with known owl pairs within a region of relatively low abundance of suitable owl habitat.

OR-63: Roseburg District-BLM; Douglas County

Critical habitat unit OR-63 was established to provide essential nesting, roosting, and foraging habitat and just as important, to provide a stepping stone of nesting habitat for owls within the western end of the Rogue-Umpqua portion of the I-5 area of concern. Because of the checkerboard ownership pattern of the region, unit OR-63 provides at best, a tenuous link between OR-62 of the Klamath Mountains province and OR-32 of the Western Cascades province. OR-63 was developed through the exclusion process and was originally the eastern portion of unit O-26. Total post-exclusion acreage mapped for this unit equals 11,029 acres (which incorporates 2,554 private acres). All of the 8,474 Federal acres in this unit are managed by the BLM.

OR-64: Medford District-BLM; Josephine and Douglas Counties

Critical habitat unit OR-64 was established to maintain essential nesting, roosting, foraging, and dispersal habitat along with clusters of owls. Located between units OR-65 and OR-62, unit OR-64 provides an important stepping stone of nesting habitat for owls to OR-32 which is along the western end of the Rogue-Umpqua portion of the I-5 area of concern. This connection between the Coast Ranges and Western Cascades provinces was identified by the Service as an area, due to past harvest practices, current habitat conditions, and land ownership, the importance of maintaining suitable nesting, roosting, foraging, and dispersal habitat has escalated. Given their importance to maintaining range-wide distribution of the owl, this smaller stepping stone CHU was established to help maintain and improve what little spotted owl habitat still exists. Total post-exclusion acreage mapped for this unit equals 7,665 acres (which incorporates 2,154 private acres). All of the 5,511 Federal acres in this unit are managed by the BLM.

OR-64 is located on Medford District BLM. No LSR allocation is within this unit. This unit was established to maintain the remaining owl habitat between units OR-65 and OR-32. This unit is along the western end of the Rogue-Umpqua portion of the I-5 Area of Concern. This connection between the Coast Ranges Province and the Western Cascades Province is threatened by its current habitat condition, its high fragmentation by past management practices, and land ownership patterns. This unit provides a link where range-wide distribution can be maintained.

OR-65: Medford District-BLM and Siskiyou National Forest; Josephine and Curry Counties

Critical Habitat unit OR-65 assists in providing two inter-provincial links: From the Klamath Mountains to the Western Cascades, CHU OR-65 provides a core area of suitable habitat before extending to the east across severely fragmented Rogue-Umpqua portion of the I-5 area of concern; and from the Klamath Mountains north to the Coast Ranges province, this unit augments a similar core area of suitable nesting habitat before entering a bottle neck of owl

habitat distribution across to the Coast Ranges. Unit OR-65 is necessary to improve owl distribution and connectivity with other critical habitat units (between OR-65 and OR-67) and was established to provide nesting, roosting, and foraging habitat, which will in turn promote and dispersal habitat. The unit had the western side of the originally proposed unit O-24 and incorporates HCA O-24. Total post-exclusion acreage mapped for this unit equals 91,613 acres (which incorporates 6,940 private acres and 8,041 State acres). Unit OR-65 is part of the area within Oregon representing known marten and fisher concentrations. Of the 76,632 Federal acres 98.1 percent is managed by the BLM and 1.9 percent is Forest Service-managed.

OR-65 is located on the Medford District BLM and the Siskiyou National Forest. Sixty-six percent of this CHU is located within the Fish Hook/Galice LSR. This unit provides two inter-provincial links: from the Klamath Mountains Province to the Western Cascades Province, and from the Klamath Mountains Province north to the Coast Ranges Province. This unit provides a core area of suitable habitat to help augment the severely fragmented Rogue-Umpqua portion of the I-5 Area of Concern. A portion of the 2002 Biscuit Fire occurred in the SW corner of this CHU; 1,642 acres of suitable habitat for spotted owl was lost.

OR-66: Siskiyou National Forest and Coos Bay District-BLM; Curry County

Critical habitat unit OR-66 is located toward the western edge of the range of the owl at the northern end of the Klamath Mountains province. This unit represents essential nesting, roosting, and foraging habitat necessary to maintain the existing range of the subspecies in a region that provides the connecting link between the Oregon Cascades and Klamath Mountains provinces. This unit adjoins the Grassy Knob Wilderness Area which, although it is mostly suitable habitat, was not proposed as critical habitat since it does not require special management considerations or protection at this time. Total post-exclusion acreage mapped for this unit equals 8,482 acres (which incorporates 75 private acres). Of the 8,406 Federal acres 0.1 percent is managed by the BLM and 99.9 percent is Forest Service-managed.

OR-66 is located on the Siskiyou National Forest and the Coos Bay District BLM. One hundred percent of this CHU is located within the Northwest Coast LSR. This CHU provides the connecting link between the Oregon Cascades Province and the Klamath Mountains Province. This unit adjoins the Grassy Knob Wilderness, which currently supports suitable habitat.

OR-67: Medford District-BLM and Siskiyou National Forest; Coos, Curry, and Douglas Counties

Critical habitat unit OR-67 incorporates HCA O-25 and was established to maintain the essential features of nesting, roosting, and foraging habitats. This unit enhances the ability to maintain the westerly portion of the species' range in the northern Klamath Mountains province. The entire unit is of high importance for maintaining the range-wide distribution of the subspecies since it provides an integral portion of the link from the Klamath Mountains province to the southern end of the Oregon Coast Ranges province. The northeast extension of this unit provides one of two legs (the other being units OR-64 and OR-65) connecting the hinge-pin (OR-62) of tri-provincial linkage. Unit OR-67 also helps support the western end of the Rogue-Umpqua portion of the I-5 area of concern which connects the southwest edge of the Oregon Cascades province to the Klamath Mountains province. To the immediate north of this unit lies large expanses of non-federal lands lacking known suitable owl habitat. Unit OR-67 encompasses the Wild Rogue Wilderness but wilderness lands were not included in this proposal because they do not require special management conditions nor additional protection at this time. Lower elevation lands within the wilderness, however, contain suitable nesting habitat. Total post-exclusion acreage mapped for this unit equals 103,047 acres (which incorporates 4,766 private acres and 3,466 State acres). Of the 94,815 Federal acres 20.2 percent is managed by the BLM and 79.8 percent is Forest Service-managed.

OR-67 is located on the Medford District BLM and the Siskiyou National Forest. Sixty-eight percent of this CHU is located within the Northwest Coast and Fish Hook/Galice LSRs. This CHU provides a portion of the link from the Klamath Mountains Province to the southern end of the Oregon Coast Ranges Province. It helps support the western end of the Rogue-Umpqua portion of the I-5 Area of Concern which connects the southwest edge of the Oregon Cascades Province to the Klamath Mountains Province. Lands immediately north of this unit are non-federal and lack suitable owl habitat. This unit also encompasses the Wild Rogue Wilderness, which supports suitable habitat in its lower elevations

OR-68: Siskiyou National Forest; Curry County.

Critical habitat unit OR-68 establishes a continuous narrow band of nesting habitat between units OR-69 and OR-67. The unit was established to provide essential nesting, roosting, and foraging habitat. The lack of suitable owl habitat between critical habitat units OR-67 and OR-69 necessitated delineation of essential nesting habitat which will ensure well-distributed blocks of nesting habitat are maintained. Total post-exclusion acreage mapped for this unit equals 1,321 acres (which incorporates 0 private or State acres). All of the 5,511 Federal acres in this unit are managed by the Forest Service.

OR-68 is located on the Siskiyou National Forest. Eighty-seven percent of this CHU is located within the Fish Hook/Galice LSR. This unit provides a narrow band of suitable habitat that connects OR-67 and OR-69. A portion of the 2002 Biscuit Fire occurred in the southern end of this CHU; 2,971 acres of suitable habitat for spotted owl was lost.

OR-69: Siskiyou National Forest; Curry and Josephine Counties

Critical habitat unit OR-69 is the western half of the originally proposed unit OR-68 and resulted from the exclusion process conducted for the August 13 proposal. Unit OR-69 was designated to provide nesting, roosting, and foraging habitat in the area that provides the single link of critical habitat through the northwest portion of the Klamath Mountains province leading to the Coast Ranges province. Along with CHU OR-70, this critical habitat unit provides a key link to the north-south movement of owls between OR-71 and OR-67, OR-65, and OR-68. The unit, which abuts the northern end of the Kalmiopsis Wilderness Area, incorporates the northern extension of HCA O-23. The wilderness contains only moderate amounts of suitable owl habitat and is an area within Oregon of known marten and fisher concentrations. Total post-exclusion acreage mapped for this unit equals 26,615 acres (which incorporates 115 private acres and 1,795 State acres). All of the 24,704 Federal acres in this unit are managed by the Forest Service.

OR-69 is located on the Siskiyou National Forest. Ninety-one percent of this CHU is located within the Fish Hook/Galice LSR. This unit provides the single link through the northwest portion of the Klamath Mountains Province leading to the Coast Ranges Province. This unit provides the key link for north-south movement of owls between units OR-71, OR-67, OR-65, and OR-68. This unit also adjoins the northern end of the Kalmiopsis Wilderness, which currently supports little suitable owl habitat. The 2002 Biscuit Fire occurred encompassed much of this CHU; 9,482 acres of suitable habitat for spotted owl was lost in the fire, of the 13,109 acres which existed pre-fire.

OR-70 :Siskiyou National Forest; Josephine County

Critical habitat unit OR-70 was designated in an area weak connectivity between units to maintain essential nesting, roosting, and foraging habitat. Unit OR-70 provides the only designated link for north-south movement of spotted owls between OR-72 and OR-69. The exclusion process conducted after the August 13 proposal removed portions of unit O-23 which resulted in breaking it into two critical habitat units which were then designated as OR-69 and

OR-70. Unit OR-70 incorporates the original HCA O-23 and abuts the eastern boundary of the Kalmiopsis Wilderness Area. Total post-exclusion acreage mapped for this unit equals 37,037 acres (which incorporates 224 private acres and 3,194 State acres). All of the 33,618 Federal acres in this unit are managed by the Forest Service.

OR-70 is located on the Siskiyou National Forest. Seventy-six percent of this CHU is located within the Briggs and West IV LSRs. This unit provides the only link between CHUs OR-69 and OR-72. The Siskiyou National Forest and the Medford District BLM have identified the Highway 199 corridor between units OR-70 and OR-72 as an Area of Concern due to the geology, ownership and past management practices (SW OR LSR Assessment, USDA Siskiyou National Forest/USDI Medford District Bureau of Land Management. 1995). This unit also adjoins the eastern boundary of the Kalmiopsis Wilderness. The 2002 Biscuit Fire occurred encompassed much of the western portion of this CHU; 9,157 acres of suitable habitat for spotted owl was lost in the fire, of the 18,852 acres that existed pre-fire.

OR-71: Siskiyou National Forest; Curry County

Critical habitat unit OR-71 adjoins the southwestern extension of the Kalmiopsis Wilderness area and was established to maintain and improve upon the large blocks of suitable nesting habitat in the southwestern corner of Oregon. CHU OR-71 currently provides essential nesting, roosting, foraging, and dispersal habitat in southwestern Oregon. Lands within the adjacent Kalmiopsis Wilderness were not proposed as critical habitat since they do not require special management considerations or protection beyond that which currently exists. However, only a quarter of the lands within the Kalmiopsis Wilderness were identified as containing owl habitat. This CHU provides the sole north-south link within the Oregon Klamath Mountains province to the California Coastal redwood zone. It is also one of the furthest-most westerly units within the range of the subspecies, thereby important for maintaining the range-wide distribution of the subspecies. Unit OR-71 includes the Oregon portion of HCA O-22, was originally proposed as O-22 in the August 13 proposal, and connects to unit CA-18 in California. Total post-exclusion acreage mapped for this unit equals 54,016 acres (which incorporates 465 private acres). All of the 53,551 Federal acres in this unit are managed by the Forest Service.

OR-71 is located on the Siskiyou National Forest. Ninety-five percent of this CHU is located within the South Chetco LSR. This unit provides the only north-south link within the Klamath Mountains Province to the California Coastal redwood zone. This unit adjoins the southwest portion of the Kalmiopsis Wilderness, and is the most westerly unit within the range of the northern spotted owl. . The 2002 Biscuit Fire occurred encompassed part of the east side of this CHU; 421 acres of suitable habitat for spotted owl was lost in the fire, of the 24,281 acres which existed pre-fire. The Repeater Fire of 1998 removed another 100 acres of suitable habitat for spotted owl

OR-72: Medford District-BLM and Siskiyou National Forest; Josephine County

Critical habitat unit OR-72 provides important east-west and north-south intra-provincial connectivity and maintains large blocks of suitable habitat in an area of high fragmentation. This region of high fragmentation is due in part to checkerboard ownership patterns and their associated timber harvest patterns, impact from fires, and the naturally occurring serpentine soils. This unit was originally proposed as O-21 and incorporates HCA O-21. Unit OR-72 provides a key link of suitable nesting habitat to units OR-73 and OR-74 in the south and unit OR-69 to the northwest. Total post-exclusion acreage mapped for this unit equals 78,479 acres (which incorporates 22,399 private acres). Of the 56,080 Federal acres 86.8 percent is managed by the BLM and 13.2 percent is Forest Service-managed.

OR-72 is located on the Medford District BLM and the Siskiyou National Forest. Eighty-nine percent of this CHU is located within the East IV/Williams LSR. This unit provides a very important east-west and north-south intra-provincial (Klamath Mountains Province) connectivity, in an area of high fragmentation. The high fragmentation is a result of the geology, fire history, ownership patterns, and past management practices. This unit is an important link for the Highway 199 Area of Concern (SW OR LSR Assessment, USDA Siskiyou National Forest/USDI Medford District Bureau of Land Management. 1995).

OR-73: Siskiyou and Rogue River National Forests; Josephine County

Critical habitat unit OR-73 consists of, and was established to provide for, essential nesting, roosting, and foraging habitat and a north-south link through the central portion of the Klamath Mountains province from Oregon into California and the Red Buttes Wilderness. The natural fragmentation of the area caused by serpentine soils and high-elevation mountain ridges is compounded by the human-caused removal of spotted owl habitat. Unit OR-73 also provides important east-west connectivity along the Oregon-California boarder for maintaining range-wide distribution of suitable nesting habitat blocks. This unit was originally proposed as unit C-5-O in the August 13 proposal and currently connects to unit CA-15 in California. Total post-exclusion acreage mapped for this unit equals 11,702 acres (which incorporates 0 private or State acres). All of the Federal acres in this unit are managed by the Forest Service.

22) OR-73

OR-73 is located on the Siskiyou and the Rogue River National Forest. Eighty-six percent of the CHU is located within the East IV/Williams LSR. This unit provides a north-south link through the Central portion of the Klamath Mountains Province from Oregon to California and the Red Buttes Wilderness. The unit also provides important east-west connectivity along the Oregon-California border. This area is naturally fragmented by serpentine soils and high elevation mountain ridges, and present habitat fragmentation has been compounded by past management practices.

OR-74: Siskiyou National Forest and Medford District-BLM; Jackson and Josephine Counties

Critical habitat unit OR-74 was established to provide for suitable nesting habitat in an area currently highly fragmented, therefore, to improve the range-wide distribution of owl nesting, roosting, and foraging habitat. This unit is also the sole CHU which creates the east-west connection of owl habitat across the southern portion of the Klamath Mountains province in Oregon (between units OR-72 and OR-73, and unit OR-75). Along with unit OR-75, this unit provides an east-west linkage in southern portion of the Oregon Klamath Mountains. Total post-exclusion acreage mapped for this unit equals 32,295 acres (which incorporates 1,283 private acres). Unit OR-74 was originally proposed as unit GPQ-1 in the August 13 proposal. Of the 31,012 Federal acres 90.8 percent is managed by the BLM and 9.2 percent is Forest Service-managed.

OR-74 is located on the Medford District BLM and the Siskiyou National Forest. Five percent of the unit is located within the East IV/Williams. This unit along with OR-75 provides the east-west connection along the southern portion of the Klamath Mountains Province. This region is highly fragmented from ownership patterns, geology, and past management practices.

OR-75: Medford District-BLM; Jackson County

Critical habitat unit OR-75 was established to maintain adequate distribution of nesting, roosting, and foraging habitat and improve connectivity between CHUs in a region of high fragmentation; due in part to checkerboard ownership and natural and human-caused habitat

removal. This unit, which was previously proposed as MDF-1, lies between and helps reduce the distance between units OR-76 and OR-74 (see above). Blocks of contiguous suitable nesting habitat and areas with known owl pairs were incorporated to maintain and improve range-wide distribution of owl habitat. Along with unit OR-74, this unit provides an east-west linkage in southern portion of the Oregon Klamath Mountains. Total post-exclusion acreage mapped for this unit equals 21,955 acres (which incorporates 2,639 private acres). Of the 19,316 Federal acres 99.9 percent is managed by the BLM and 0.1 percent is Forest Service-managed.

OR-75 is located on the Medford District BLM and the Rogue River National Forest. No LSR allocation is located within this unit. This unit reduces the distance between OR-74 and OR-76. Along with OR-74, this unit provides the east-west connection along the southern portion of the Klamath Mountains Province. Quartz fire acres on BLM is 340 acres (based on info for the data call 6/30/03. (already in baseline)

OR-76: Rogue River National Forest; Jackson County

Critical habitat unit OR-76, which rests along the California-Oregon boarder, is not only the lead-in link to the Ashland area of concern but also is integral in providing east-west distribution of spotted owl habitat in the Oregon portion of the Klamath Mountains province. Critical habitat was designated in this area where linkage within and between physiographic provinces are of regional concern. Unit OR-76 was established to provide essential nesting, roosting, foraging, and dispersal habitat in this zone of inter- and intra-provincial linkage. The continuation of this unit into California is discussed in the California narratives. Total post-exclusion acreage mapped for this unit equals 61,920 acres (which incorporates 31,241 private acres and 126 State acres). Unit OR-76 includes HCA O-20-O, was previously numbered O-20-O in the August 31, 1991, proposal, and currently connects to CA-14 in California. Of the 30,553 Federal acres 2.4 percent is managed by the BLM and 97.6 percent is Forest Service-managed.

OR-76 is located on the Rogue River National Forest. Sixty-three percent of the unit is located within the Mt. Ashland LSR. This unit provides inter- and intra-provincial linkage between the Klamath Mountains Province and the Western Cascades Province. It is also the main link to the Ashland Area of Concern and provides east-west distribution of spotted owl habitat in the Oregon portion of the Klamath Mountains Province.

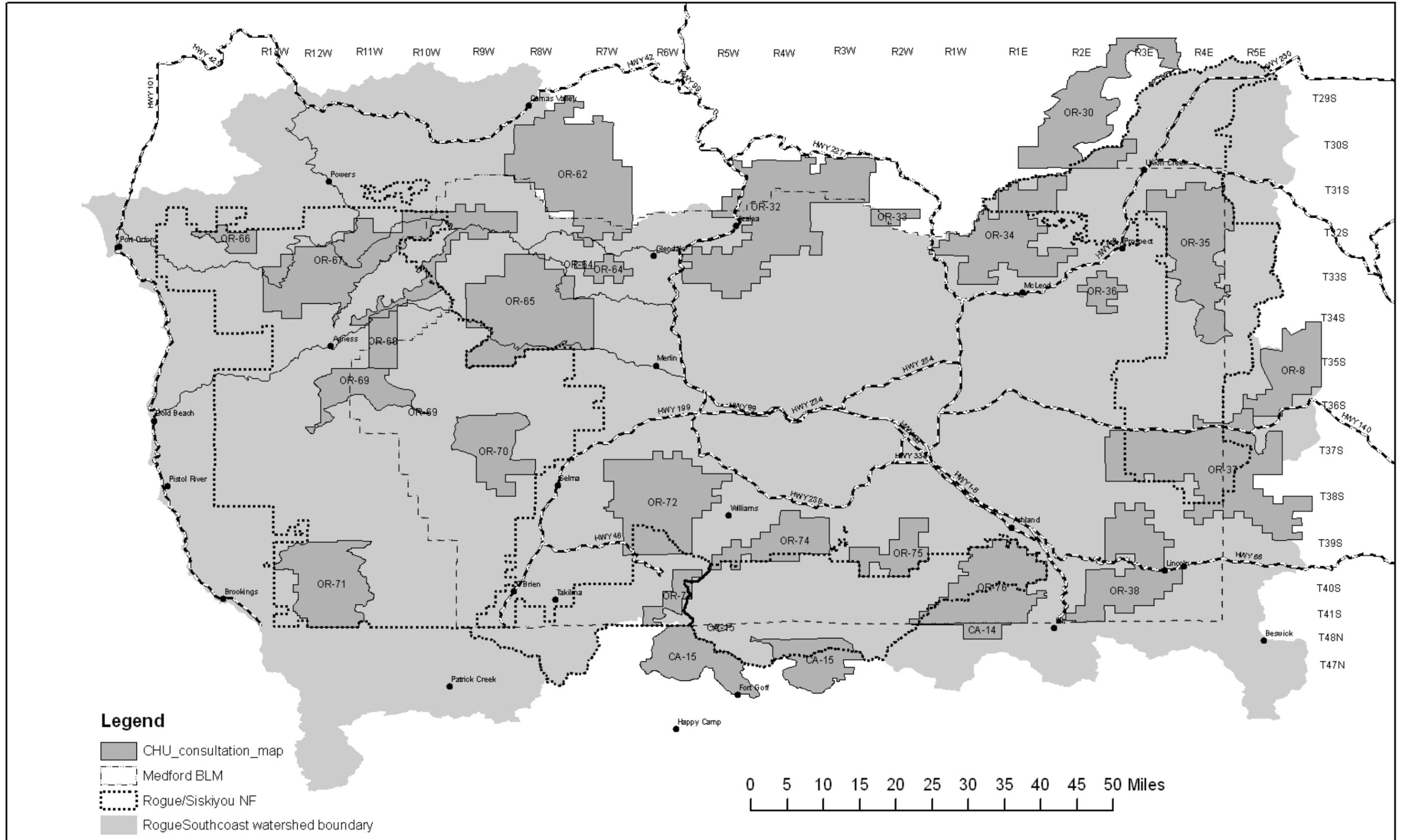
2) CA-15 is located on the Rogue River and the Klamath National Forests. Eighty-seven percent of the unit is located within the Applegate/Oak Knoll and Grider/Thomas LSRs. This unit surrounds the Red Buttes Wilderness and is the northernmost unit in the California portion of the Klamath Mountains Province. This unit strengthens the north-south link between California and Oregon.

Appendix B. CHU 2006 Baseline.

CHU #	Total Acres	Acres Capable of being suitable (NRF)	2006 CHU suitable (NRF) baseline	2002 Dispersal Acres	All NRF removal 02-05 ¹	Sum all Dispersal removal	2006 Dispersal ²
CA-15		9,075	8,559		0	0	
OR-30	8,623	8,316	4,857	6206			6206
OR-32	42,743	39,694	20,287	24585	27	27	24558
OR-34	47,486	41,897	21,096	28631	164	169	28462
OR-35	64,101	67,930	27,008	46680			46680
OR-36	7,614	6,607	2,914	3823			3823
OR-37	64,669	56,021	36,472	35238	5	17	35221
OR-38	41,753	27,900	14,120	23669			23669
OR-62	5,322	5,168	3,609	4038	43	43	3995
OR-64	4,944	5,489	3,799	3408	14	14	3394
OR-65	86,532	61,872	39,680	65784			65784
OR-66	8,295	8,251	4,506	6355			6355
OR-67	98,366	80,964	38,667	66482	113	127	66355
OR-68	13,379	13,223	4,111	9538			9538
OR-69	26,656	23,683	3,627	10283			10283
OR-70	36,857	23,148	9,695	18397			18397
OR-71	53,316	53,162	20,358	37400			37400
OR-72	57,441	43,361	18,465	40802			40807
OR-73	11,624	9,884	4,568	7555			7555
OR-74	31,144	18,962	9,859	19597			19597
OR-75	19,371	12,587	4949	9531			9531
OR-76	30,801	N/A	18,087	22083			22083
Total	761,031	617,194	319,293	490085	366	397	489693

1. There was no NRF loss in FY2004-05. 2006 CHU NRF baseline is same as 2003 CHU baseline. Baseline is up to date through FY2005
2. Dispersal includes NRF and dispersal only habitat.

Critical Habitat Units



Appendix C. Descriptive narratives of Late Successional Reserves (LSR) located on the Rogue River and Siskiyou National Forests and the Medford District Bureau of Land Management.

This Appendix was originally developed for the 1 August 96 BA (1-7-96-F-392). It has been updated to reflect the changes from large forest fires since that time. See table C-1.

1) South Chetco LSR

The South Chetco LSR is located west of the Smith River and West IV LSR. Most of the area consists of National Forest with a small amount of BLM land (Coos Bay District) that exists between the National Forest and the Pacific Ocean. Ninety-five percent of the LSR is capable of growing spotted owl habitat. Post-Biscuit Fire, 44 percent of the capable lands are currently older forests.

Pre-Biscuit Fire, the LSR historically supported 20 activity centers for the northern spotted owl. Twelve of the 20 (60%) centers had less than 30 percent of their home range in suitable owl habitat. Only one of the 20 home ranges encompassed more than 40 percent suitable owl habitat. Post-Biscuit Fire, four activity centers in the Fire area suffered reductions in NRF habitat. Occupied behaviors by marbled murrelets have been detected on 20 occasions in this LSR, and presence has been detected on an additional 52 occasions.

The areas of older forest habitat that connect to other areas are along the rivers. The north slopes along these streams support large trees and form stringers to connect older forests. For example, the Wild and Scenic Chetco River has older forest habitat that links this LSR to the Kalmiopsis Wilderness. In addition, older forest connections also link this LSR to the Six Rivers National Forest to the South.

The 2002 Biscuit Fire and 1999 Repeater Fire encompassed a small portion of this LSR; 855 acres of suitable habitat for spotted owl was lost in the fires, of the 30,542 acres that existed pre-fire (100 lost acres from the Repeater Fire, the rest from Biscuit).

2) North Chetco LSR

The North Chetco LSR consists of National Forest lands, and is a continuation of the South Chetco LSR. The hardwood component is not as dominant, although the tanoak plant series covers much of this LSR. Ninety-four percent of the LSR has the potential to grow large trees and older forests suitable for the northern spotted owl. Post-Biscuit Fire, 28 percent of the capable lands are currently in older forests.

Pre-Biscuit Fire, the LSR historically supported four activity centers for the northern spotted owl. One of these owl home ranges had less than 30 percent suitable owl habitat. Another home range had greater than 40 percent suitable owl habitat. Post-Biscuit Fire, all activity centers in the Fire area suffered reductions in NRF habitat. Occupied behaviors by marbled murrelet have been detected on four occasions in this LSR, and presence has been detected on an additional 14 occasions.

North-facing slopes close to riparian areas contain extremely large trees. These older forest areas connect to the Fish Hook/Galice LSR through the riparian zones of Lawson Creek downstream to the Illinois River.

The 2002 Biscuit Fire encompassed a portion of this LSR; 2,458 acres of suitable habitat for spotted owl was lost in the fire, of the 9,910 acres that existed pre-fire.

3) Northwest Coast LSR

The Northwest Coast LSR consists mostly National Forest land, except for small BLM areas on the west, north, and northeast borders. The majority of this large LSR is within the tanoak and hemlock plant series. Ninety-five percent of the LSR is capable of growing spotted owl habitat. Forty-eight percent of the capable land is currently older forest.

This LSR presently supports 37 known activity centers for the northern spotted owl. Fourteen (38%) of these home ranges contain less than 30 percent suitable owl habitat. Nineteen (51%) of the 37 home ranges contain more than 40 percent suitable owl habitat. Occupied behaviors by marbled murrelets have been detected on 70 occasions in this LSR, and presence has been detected on an additional 150 occasions. The boundary between the Northwest Coast and Fish Hook/Galice LSRs defines the known inland extent for the range of the marbled murrelet.

This coastal LSR is large (146,000 acres), with many linkages of older forest habitat. A large older forest links the Rogue River/Agness area to Agness Pass via the late-successional habitat in Foster Creek. A relatively large area of older forest habitat exists in the Elk River drainage, including the Grassy Knob Wilderness. The older vegetation along the Coquille River corridor links with Agness Pass and Elk River. Hall Creek in the Coquille drainage supports a relatively large unfragmented block of habitat with numerous Port-Orford-cedar stands containing many large trees, murrelets, and spotted owls. The boundary between Fish Hook LSR and the Northwest Coast LSR, and the North/South Chetco LSRs and the Kalmiopsis Wilderness is a 3,000' or greater ridge. Nesting murrelets have not been detected inland from this ridge during protocol surveys (except for three "presence" sightings just east of the line). The summer fog and western hemlock plant series also do not cross this ridge.

4) Fish Hook/Galice LSR

The Fish Hook/Galice LSR contains a mixture of BLM and National Forest lands. The tanoak and Douglas-fir plant series occupy the majority of this LSR, with a major component of white fir. Ninety-three percent of the LSR is capable of growing spotted owl habitat. Of these capable lands, 42 percent are currently older forests, Post-Biscuit Fire

Pre-Biscuit Fire, the LSR historically supported 53 activity centers for the northern spotted owl. Forty-one activity centers (77%) had greater than 30 percent of their home range as suitable owl habitat, and 45 (88%) of the 51 home ranges contained greater than 40 percent suitable owl habitat. Two spotted owl activity centers (4%) had less than 30 percent suitable owl habitat. Post-Biscuit Fire, 19 activity centers in the Fire area suffered reductions in NRF habitat.

This is the central LSR on the Siskiyou National Forest and consequently provides many connections. It provides a corridor of older forest habitat between the Kalmiopsis and Wild Rogue Wildernesses. It has a connection of existing older forest habitat through Lawson Creek and the Illinois River to the Northwest Coast LSR. Another connection is the Foster Creek drainage where older forest habitat connects to the Northwest Coast LSR. In addition, the areas not harvested in Silver, Shasta Costa, and Indigo watersheds

provide unfragmented habitat (Silver Creek drainage was hit especially hard by the Biscuit Fire). The east/west older forest link helps connect the coastal mountains east across the valley to the Rogue-Umpqua divide.

The 2002 Biscuit Fire encompassed a major portion of this LSR; 24,872 acres of suitable habitat for spotted owl was lost in the fire, of the 117,252 acres that existed pre-fire (1,465 acres lost on BLM; the rest of the loss on NF).

5) Taylor LSR

The Taylor LSR consists entirely of National Forest lands. This LSR is a small area, designated for its critical anadromous fish habitat and stair step (low elevation to high elevation) characteristics. Douglas-fir plant series is the major ecological classification. Ninety-four percent of the lands are capable of growing spotted owl habitat. Currently, 54 percent of the capable lands are in older forests.

It presently supports two known activity centers for the northern spotted owl. One home range contains less than 30 percent suitable owl habitat. The other contains between 30 percent and 40 percent suitable owl habitat.

Stringers of older forest habitat in the northeast and west link BLM-managed lands to the Fish Hook/Galice LSR. Habitat corridors along riparian reserves also connect Taylor LSR to the southwest.

6) Briggs LSR

The Briggs LSR consists entirely of National Forest lands. The tanoak and Douglas-fir plant series occupy the majority of this LSR. Only 66 percent of the LSR is capable of growing spotted owl habitat. Of these capable lands, 31 percent are currently older forests, Post-Biscuit Fire (late successional habitat occupied 66 percent, pre-fire).

Pre-Biscuit Fire, the LSR historically supported eight activity centers for the northern spotted owl. All activity centers had greater than 30 percent of their home range as suitable owl habitat, and of these 6 (75%) centers had greater than 40 percent of their home range in suitable owl habitat. Post-Biscuit Fire, five activity centers in the Fire area suffered reductions in NRF habitat.

Important characteristics of this LSR are the Illinois River connection between the Illinois Valley and the Rogue River. In addition, the older forest habitat in the Briggs LSR connects to the Kalmiopsis Wilderness and to the Taylor Creek LSR.

The 2002 Biscuit Fire encompassed a major portion of this LSR; 13,300 acres of suitable habitat for spotted owl was lost in the fire, of the 23,773 acres that existed pre-fire.

7) East IV/Williams-Deer LSR

The East IV/Williams-Deer LSR contains a combination of National Forest and BLM lands. The white fir, tanoak, and Douglas-fir plant series occupy most of this LSR. Eighty-eight percent of the LSR is capable of growing spotted owl habitat. Of these capable lands, 49 percent are currently older forests.

It presently supports 42 activity centers for the northern spotted owl. Fourteen of these activity centers (33%) have less than 30 percent of their home range in suitable owl habitat. Twenty-two of these 42 (52%) activity centers contain greater than 40 percent of their home range in suitable owl habitat.

Other characteristics and functions of this LSR are the high elevation older forest connections between the mountains east of the Illinois Valley and the coastal part of the Siskiyou. Most of this high elevation connection occurs in the white fir and red fir plant series. Parts of this LSR also connect the Rogue and Illinois River Valleys. In addition, this LSR provides contiguous forest reserves from the lower elevations to the higher elevations. This LSR connects with scattered older forest habitat on BLM lands to the north and east (part of the Applegate AMA) and larger blocks of older forest habitat in the Siskiyou and Red Buttes Wildernesses to the south and east (on Klamath and Rogue River NFs, respectively). Older forest connections directly to the east and west are lacking.

8) West IV LSR

National Forest lands dominate within the West IV LSR; a small amount of BLM land is also present. It has a large component of Jeffrey pine plant series and Douglas-fir/tanoak plant series. Only 22 percent of the LSR has the potential to grow large trees and older forests suitable for the northern spotted owl. Nineteen percent of these capable lands are in late-successional conditions, Post-Biscuit Fire. Acres of capable NRF habitat for the West IV LSR are inherently low, because serpentine soils overlay much of this LSR; most serpentine sites are not capable of producing NRF habitat (see Table B-1).

Pre-Biscuit Fire, the LSR historically supported three known activity centers for the northern spotted owl. One of these centers had less than 30 percent of its home range in suitable owl habitat. One of the centers had greater than 40 percent of its home range in suitable owl habitat. Post-Biscuit Fire, two activity centers in the Fire area suffered reductions in NRF habitat.

This LSR connects Briggs, South Chetco, and East IV LSRs and connects to an administrative study area in the Siskiyou National Forest, the North Fork Smith Recreation area to the south (Six Rivers National Forest), and the Kalmiopsis Wilderness to the north. Important areas for older forest connections are the Illinois River corridor and the BLM lands which connect to the Sucker-Grayback drainage. Only limited connections of older forests are available to the east, west, and south due to private land, geology, and past management practices.

The 2002 Biscuit Fire encompassed much of this LSR; 5,094 acres of suitable habitat for spotted owl was lost in the fire, of the 7,240 acres that existed pre-fire.

9) Grider/Thomas LSR

The Grider/Thomas LSR consists entirely of National Forest lands. Analysis for this LSR has not yet been completed by the Klamath National Forest, so USDI FWS data was used. Data on capable lands were not available; however, currently 26 percent of the land is in older forests.

It presently supports 13 activity centers. Two (15%) activity centers have greater than 40 percent of their home range in suitable owl habitat. Eleven of the 13 (85%) have between 30-40 percent suitable owl habitat within their home range. However, most of the LSR has not been surveyed to protocol.

This LSR connects the East IV/Williams LSR to the north, the Red Buttes Wilderness to the east, and the Marble Mountains Wilderness to the south. Older forest connections are present in these areas. However, lack of older forest connections is expected to the southeast towards the Siskiyou Wilderness and to the east towards Critical Habitat Unit CA-16. Reasons for this are the land ownership patterns and typical past management practices.

10) Applegate/Oak Knoll LSR

The Applegate/Oak Knoll LSR consists entirely of National Forest lands. White-fir plant series is the major ecological classification. Eighty-nine percent of the land is capable of growing spotted owl habitat. Currently, 56 percent of the capable lands are in older forests.

It presently supports 18 activity centers for the northern spotted owl. Two centers have less than 40 percent suitable owl habitat.

This LSR has older forest connections across the Applegate Ranger District east to the Mt. Ashland LSR and west to the East IV/Williams LSR. It also has older forest connections through the Red Buttes Wilderness to the Grider/Thomas LSR. This region is naturally fragmented by climate, ecotype, and fire regime. There are high elevation ridges along these connections; however, the abundance of dispersal habitat allows no greater than 3/4-mile distance from dispersal/suitable owl habitat.

11) Mt. Ashland LSR

The Mt. Ashland LSR consists entirely of National Forest lands. The majority of the LSR is coniferous forest. Douglas-fir and ponderosa pine communities dominate at the lower elevations. White fir communities dominate the middle elevations, with Shasta red fir dominating the higher elevations, and giving way to mountain hemlock at the highest elevations. Ninety-one percent of the lands are capable of growing spotted owl habitat. Currently, 64 percent of the capable lands are in older forests.

It presently supports 26 activity centers for the northern spotted owl. One (0.5%) activity center has less than 30 percent suitable owl habitat, and three (14%) centers have 30 percent to 40 percent suitable owl habitat.

The Mt. Ashland LSR links the high elevation Siskiyou range of the Klamath Geological Province with the Southern Oregon Cascades. This link is a critical node in the overall migratory patterns in the Pacific Northwest. It allows flow to and from all legs and arms of the 'H,' a process important to the Region as a whole for the last 60 million years. The Cascade-Siskiyou National Monument to the east is highly fragmented by ownership patterns and past land use, substantially decreasing its function as a link in the LSR network. It is separated from the Mt. Ashland LSR by private lands and Interstate Highway 5, which is a barrier for some animal species.

LSRs to the west are more continuous, lack significant migratory barriers, and over half the area in each is in late-successional condition.

12) Soda Mt. LSR — Now Cascade-Siskiyou National Monument

The Cascade-Siskiyou National Monument consists entirely of BLM lands. White fir and mixed conifer plant series dominate this LSR. Fifty-five percent of the lands are capable of producing spotted owl habitat. Currently, 31 percent of the capable lands are in older forests/suitable habitat.

It presently supports 18 activity centers for the northern spotted owl. Two centers (11%) have 30 percent to 40 percent suitable owl habitat, and the remaining 16 centers (89%) have less than 30 percent suitable owl habitat within their home ranges.

This LSR is highly fragmented as a result of ownership patterns, and past management actions. However, it does provide a crucial link along with the Ashland LSR between the Western Cascades and the Klamath Provinces in the southern portion of the I-5 Area of Concern. There has been at least one confirmed spotted owl migration from west of the Applegate District to this LSR. However, forest connectivity for dispersal remains a concern.

13) Dead Indian LSR

The Dead Indian LSR consists entirely of National Forest lands. This LSR straddles the Cascade Crest. The eastern half is located in the Oregon Eastern Cascades Physiographic Province and the western half is in the Oregon Western Cascades Physiographic Province. White fir and Shasta red fir plant associations dominate the LSR. Sixty-three percent of the lands are capable of growing spotted owl habitat. Currently, 71 percent of the capable lands are in older forests.

It presently supports 67 activity centers for the northern spotted owl. Thirty-six centers (54%) have less than 30 percent suitable owl habitat within their home ranges. Fourteen of the 67 (21%) centers have between 30 percent and 40 percent suitable owl habitat.

The east half of Dead Indian LSR lacks connectivity to the west side habitat, as a result of natural and manmade fragmentation. Fragmentation is caused by high elevation plant communities, lava fields from Mt. McLoughlin and Brown Mt., and past land management activities. The east half of the LSR appears to be weakly connected through older forest habitat to Crater Lake National Park to the north. However, dispersal habitat is strongly connected to the Park through subalpine and lodgepole pine plant communities in the Sky Lakes Wilderness. Mixed areas of BLM and privately owned lands occur south of the LSR. These areas are highly fragmented, caused by natural conditions, past land use, and ownership patterns. Connectivity north to the Middle Fork LSR is a concern. A fragmented landscape of private land and scattered remnants of older forest dominate the landscape between these two LSRs. The very eastern boundary of the LSR approximates the eastern edge of the range of the spotted owl.

14) Middle Fork LSR

The Middle Fork LSR consists entirely of National Forest lands. The majority of the LSR is coniferous forest. Douglas-fir and Western hemlock communities dominate at lower elevations. White fir and Shasta red fir communities dominate the middle to upper elevations, giving way to mountain hemlock and lodgepole

pine at the highest elevations. Ninety-nine percent of the lands are capable of growing spotted owl habitat. Currently, 56 percent of the capable lands are in older forest.

It presently supports 38 activity centers for the northern spotted owl. Twenty-three centers (61%) have greater than 40 percent suitable owl habitat. Eight centers (21%) have 30-40 percent suitable owl habitat, and the remaining 7 centers (18%) have less than 30 percent suitable owl habitat within their home ranges.

Large blocks of older forest located within Red Blanket Creek, Middle, and South Fork drainages of the Rogue River provide good dispersal across this LSR. Mountain hemlock and lodgepole pine communities dominate the eastern boundary of this LSR. Older forests, in the Sky Lakes Wilderness, occur along the stream bottoms and sides of the systems previously described.

15) Elk Creek LSR

The Elk Creek LSR contains a mixture of National Forest and BLM lands. Elevations range from 1,600-4,000 feet in the mixed conifer series. It is considered a key watershed (deferred watershed). Fifty-one percent of the lands are capable of growing spotted owl habitat.

It presently supports 17 activity centers for the northern spotted owl. Two-thirds of the LSR is within a study area on owl density (OSU-Wagner) that has undergone an intensive owl monitoring effort since 1986. Many of the active owl sites seem to be barely hanging on and not producing young.

The 2002 Timbered Rock Fire encompassed a portion of this LSR; 1,198 acres of suitable habitat for spotted owl was lost in the fire, of the 10,402 acres that existed pre-fire.

16) Rogue-Umpqua Divide LSR

The Rogue-Umpqua Divide LSR consists entirely of National Forest lands. The majority of the LSR is coniferous forest. Douglas-fir and Western hemlock communities dominate at the lower elevations. White fir and Shasta red fir communities dominate the middle to upper elevations, giving way to mountain hemlock and lodgepole pine at the highest elevations. Ninety-four percent of the lands are capable of growing spotted owl habitat. Currently, 53 percent of the capable lands are in older forest.

It presently supports 24 activity centers for the northern spotted owl. Twenty-three centers (96%) have greater than 40 percent suitable owl habitat. One owl center (4%) have 30-40 percent suitable owl habitat within its home range.

Riparian reserves, Administratively Withdrawn Areas (Research Natural Area, and Pileated/Pine Marten areas) provide the connective web across the LSR. There is a lack of older forest connections on the eastern boundary (Crater Lake National Park) of the LSR and forest connectivity for migration is a concern.

17) Lookout Mt./Black Butte LSR

The Rogue River Basin portion of this large LSR (528,000+ acres) represents 5 percent of the area. Two to three National Forests and three BLM Districts make up the Federal ownership. Information for the entire

LSR will be forthcoming after the assessment is completed. Discussion and figures are for the five percent portion of this LSR located on the Rogue River NF.

The portion of the Lookout Mt./Black Butte LSR in the Rogue Basin consists entirely of National Forest lands. The majority of this part of the LSR is mixed coniferous forest. Douglas-fir/hardwood communities dominate at the lower elevations. Shasta red fir communities dominate the middle and upper elevations. Ninety-eight percent of these lands are capable of growing spotted owl habitat. Currently, 53 percent of the capable lands are in older forest.

This LSR presently supports 24 activity centers for the northern spotted owl. Twenty centers (83%) have >40 percent suitable owl habitat. Three centers (13%) have 30-40 percent suitable owl habitat.

Large blocks of older forest are present in this part of the LSR and provide very good connectivity. In addition, several large blocks of older forest are located north of this portion, on the Umpqua National Forest, which provide an excellent connective link across the Western Cascade Mountain Range.

18) South Umpqua River/Galesville LSR

The South Umpqua River/Galesville LSR is a combination of National Forest and BLM lands. There is a checkerboard ownership pattern within the LSR. This LSR plays a critical function in East-West connectivity, linking the Coast Province with the Cascades Province. The western hemlock and Douglas-fir/chinkapin plant series comprise approximately 75 percent of the vegetation within the LSR. An estimated 43 percent of the federal lands in the LSR are in late-successional stands, and an additional 12 percent are expected to grow to late-successional stage within 40 years.

This LSR currently supports 46 northern spotted owl activity centers. Eleven of these activity centers (24%) contain greater than 40 percent of their home range in suitable owl habitat. Thirty-five (76%) activity centers do not have 40 percent of their home range in suitable condition.

Important characteristics of this LSR include the South Umpqua River and the critical function of connectivity that this LSR is expected to perform. Because of topography, land management patterns, and existing stands, the northern portion of the LSR is expected to play a greater role in connectivity.

19) West Glendale Resource Area - Four Sections LSR

This LSR consists of portions of four sections in the NW corner of the Glendale Resource Area. These sections were designated LSR primarily because they had previously been designated as Critical Habitat for marbled murrelet. Two spotted owl activity centers are present; for both, over 40 percent of the habitat within their home ranges is suitable. NRF habitat predominates in these four sections.

Table C-1. Baseline And Effects to LSRs in Rogue and South Coast Basins 2003 To Present.

FSEIS BASELINE		LSR EFFECTS, 2003 TO PRESENT				
LSR ID	NRF ACRES ¹	NRF REM/DWN FIRES (%)	NRF REM/DWN HARVEST	TOTAL REM/DWN (%)	NRF DEG	CURRENT NRF BASELINE
RC352	51,521	0	0	0	0	51,521
RC354	23,270	0	0	0	0	23,270
¹ RO222	310,629	0		0	0	310,629
RO223	33,804	0	0	0	0	33,804
RO224	8,370	0	0	0	0	8,370
RO225	19,848	0	0	0	0	19,848
RO226	22,762	0	0	0	0	22,762
RO227	47,049	0	0	0	0	47,049
RO247	9,647	0	0	0	0	9,647
RO248	19,355	0	0	0	0	19,355
RO249	40,224	0	0	0	0	40,224
RO250	23,108	0	0	0	0	23,108
RO251	672	0	0	0	0	672
RO252	6,833	0	0	0	0	6,833
RO253	5,584	0	0	0	0	5,584
RO254	3,163	0	0	0	0	3,163
RO255	107,343	0	0	0	27	107,343
RO256	1,977	0	0	0	0	1,977
RO258	33,643	2	0	0	1,336(1,204 Blossom Fire)	33,641
RO259	21,350	0	0	0	0	21,350
TOTAL	466,036	2	0	0	1,363	466,036

SOURCE: G. Mayfield., FWS, pers. comm, 2001. Spatial data were overlaid based on FSEIS data (USDA and USDI 1993,1994) for Land Allocations, Northern spotted owl habitat, LSRs, ownership and FWS data for CHU boundaries (FWS 1994) to produce these data

1-Only a small portion of this LSR lies within the action area and none of the NRF loss from fire occurred within the action area.

1-Reported percentages of NRF are relative to the total LSR acreage. Many LSRs extend outside the action area.

Late Successional Reserves



Appendix D

PROJECT DESIGN CRITERION

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.

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 PDCs 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. PDCs are described by project type. The Plant PDCs apply to all listed plants unless specifically mentioned.

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

The PDCs 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 **PDCs**. If implementation of PDCs 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 PDCs 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 PDCs 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.

<p>Vegetation management</p>	<p>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</p> <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.
<p>Restoration projects</p>	<p>Mandatory. To minimize the number of potential spotted owl or murrelet nest trees used for instream structures, only the following sources shall be used:</p> <p>(I) Trees already on the ground in areas where large woody material is adequate;</p> <p>(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.</p>
<p>Wildfire</p>	<p>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.</p>
<p>Wildfire</p>	<p>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.</p>
<p>Wildfire</p>	<p>Light Hand Tactics or Minimize Impact Suppression Tactics (MIST) should receive consideration for use within the protection zones for northern spotted owls and murrelets.</p>
<p>Quarries</p>	<p>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).</p>

	<p>Recommended</p> <p>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).</p>
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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

PDCs apply to two different inland “belts.” Appendix H shows these two Areas. PDCs 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 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 PDCs 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 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	<p>Mandatory</p> <p>To minimize the number of potential spotted owl or murrelet nest trees used for instream structures, only the following sources shall be used:</p> <p>(I) Trees already on the ground in areas where large woody material is adequate;</p> <p>(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.</p>
Fuels	<p>Mandatory</p> <p>(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.</p> <p>(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.</p> <p>(IV) During helicopter operations, flights over suitable habitat will be restricted (helicopter should be a least 1,500 feet above ground level); if not possible, fly a minimum of 500 feet above suitable habitat (above canopy).</p>
Wildfire	<p>Mandatory</p> <p>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.</p>
Wildfire	<p>Mandatory</p> <p>(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.</p>
	<p>Light Hand Tactics or Minimize Impact Suppression Tactics (MIST) should receive consideration for use within the protection zones for northern spotted owls and murrelets.</p>
Quarries	<p>Mandatory</p> <p>1) For any occupied stands or unsurveyed suitable habitat within 0.25 miles of the quarry operation, restrict operation of the quarry from April 1 to August 5. Agency biologists also have the discretion to modify the 0.25-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).</p>

	<p>Recommended</p> <p>2) For active nest stands or unsurveyed suitable habitat within 0.25 mile of the quarry operation, restrict operation of the quarry from April 1 through September 15 (unless protocol surveys demonstrate non-nesting).</p>
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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	120 yards
Impact pile driver, jackhammer, or rock drill	120 yards
Type III-IV Helicopter or single-engine airplane	120 yards
Type I or II Helicopter	0.25 mile
Chainsaws (hazard trees, tree harvest, etc.)	120 yards
Heavy equipment	120 yards

Wildland Fire - General PDCs – 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.

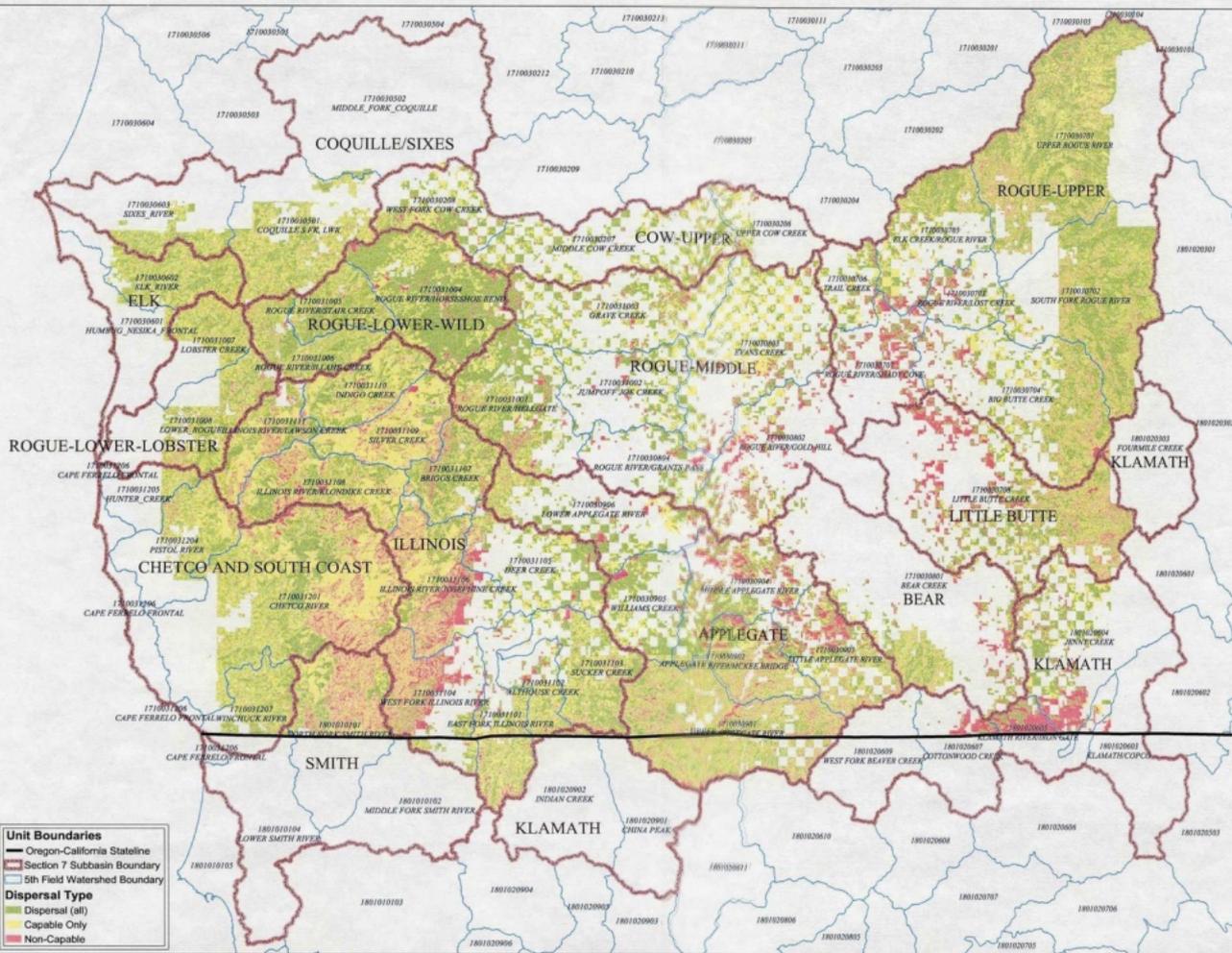
TRACKING AND MONITORING

Tracking and monitoring of activities covered by this consultation are critical to make sure that sold sales and activities under decision documents remain consistent with the proposed action, extent and effects predicted in this BA. The annual monitoring reports actual acres of habitat impact for timber sales sold are sent to the Service shortly after the ending of the fiscal year that sale was sold. Non-timber-sale projects are reported shortly after the end of the fiscal year the decision document is signed.

The annual monitoring reports are subtracted from the environmental baseline to track status of habitat annually throughout the consultation, and are also used to update the environmental baseline when a new consultation is initiated. The Level 1 team has agreed to use a Project Implementation and Monitoring Form to report FY06-08 projects. Sales and projects will be reported by categories shown in Appendix H and by Section 7 watershed, Land Use Allocation (LSR, AMA, Matrix), and by CHU, where appropriate. Changes to the form will be agreed to by Level 1 team agreement. Action Agencies will report May Affect activities for the proceeding fiscal year to the Service by December 31, unless otherwise scheduled by Level 1 team agreement.

- Monitoring reports for timber harvest operations must reflect the acres of treatment actually sold and/or awarded until harvest is completed. The BLM reports acres only when sales are sold. After harvest, if there are significant changes to the actual acres, monitoring reports shall be revised to indicate the actual number of acres treated and any observed effects to listed species.
- Monitoring will ensure that actual levels of adverse effect and incidental take resulting from implementation of the proposed action, whether from habitat modification, associated disturbance or impacts to critical habitat, do not exceed the levels anticipated in this Opinion (Appendix I). Before exceeding an anticipated level of incidental take or adverse effect the action agency shall inform the Interagency Level 1 Team and re-initiate formal consultation with the Service.

**Section 7 Subbasins
with 5th Field Watersheds
and Spotted Owl Dispersal Habitat
(Medford BLM, Rogue & Siskiyou NF)**



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Appendix F. Dispersal Habitat by 5th Section Seven Watershed.

Table G-1. Northern spotted owl dispersal habitat - Rogue River National Forest (ROR), Siskiyou National Forest (SIS) and Medford BLM (MED), by 5 th Field Watershed. Grouped by Section 7 Watersheds. Federal lands outside of ROR/SIS/MED not included in Table. Many HUC5's are peripheral to the land managed by the Rogue River and Siskiyou National Forests, and the Medford District of the Bureau of Land Management. HUC5's are based on the 2002 update of HUC5 boundaries. Acre totals based on Biscuit Fire effects analysis June 03.							
HUC5 ID	Huc5 Watershed Name	HUC5 Acres	Federal Land				
			Total Federal (ROR, SIS, MED) (% of HUC5)	Total Capable (Dispersal + Capable) (% of HUC5)	All Dispersal Habitat (% of Total Capable)	Capable Only (not presently Dispersal)	Non-Capable Only
Applegate							
1710030901	Upper Applegate River	142,208	128,293 (90)	109,340 (77)			18,953
1710030902	Applegate River/Mckee Bridge	52,258	45,382 (87)	35,124 (67)			10,258
1710030903	Little Applegate River	72,261	52,086 (72)	37,744 (52)			14,342
1710030904	Middle Applegate River	82,571	48,904 (59)	34,933 (42)			13,971
1710030905	Williams Creek	52,942	28,078 (53)	25,794 (49)			2,284
1710030906	Lower Applegate River	90,635	39,056 (43)	34,841 (38)			4,215
	TOTALS	492,875	341,799 (69)	277,776 (56)	192,550 (69)	85,226	64,023
Bear							
1710030801	Bear Creek	231,094	45,549 (20)	39,602 (17)	31,526 (80)	8,076	8,947
	TOTALS	231,094	45,549 (20)	39,602 (17)	31,526 (80)	8,076	8,947
Chetco and South Coast							
1710031201	Chetco River	225,073	175,143 (78)	151,026 (67)			24,117
1710031204	Pistol River	66,820	35,013 (52)	33,046 (49)			1,967
1710031205	Hunter Creek	28,451	6,922 (24)	6,811 (24)			111
1710031207	Winchuck River	45,578	32,209 (71)	31,934 (70)			275
	TOTALS	365,922	249,287 (68)	222,817 (61)	119,515 (54)	103,302	26,470
Coquille/Sixes							
1710030501	Coquille S Fork, Lower	108,300	64,492 (60)	62,744 (58)			1,748
1710030502	Middle Fork Coquille	197,121	1,690 (1)	1,690 (1)			0
1710030603	Sixes River	85,831	21,499 (25)	21,398 (25)			101
	TOTALS	394,252	87,681 (22)	85,832 (22)	62,065 (72)	23,767	1,849
Cow-Upper							
1710030201	Upper South Umpqua River	87,055	0 (>1)	0 (>1)			0
1710030202	Jackson Creek	102,312	5 (>1)	4 (>1)			1
1710030204	Elk Creek/South Umpqua	54,329	190 (>1)	190 (>1)			0
1710030205	South Umpqua River	141,460	555 (>1)	554 (>1)			1
1710030206	Upper Cow Creek	47,436	9,454 (20)	8,394 (18)			1,060
1710030207	Middle Cow Creek	113,048	63,553 (67)	42,383 (37)			21,170
1710030208	West Fork Cow Creek	55,871	29,016 (52)	27,579 (49)			1,437
1710030209	Lower Cow Creek	102,417	401 (>1)	397 (>1)			4
	TOTALS	703,928	103,174 (15)	79,501 (11)	52,471(67)	27,030	23,673
Elk							
1710030601	Humbug Nesika Frontal	55,637	2,881 (5)	2,832 (5)			58
1710030602	Elk River	59,332	45,054 (76)	44,553 (75)			501
	TOTALS	114,969	47,935 (42)	47,385 (41)	36,728 (78)	10,648	559
Illinois							
1710031101	East Fork Illinois River	57,624	40,517 (70)	34,924 (61)			5,593
1710031102	Althouse Creek	29,242	18,210 (62)	15,839 (54)			2,371
1710031103	Sucker Creek	62,495	48,963 (78)	44,589 (71)			4,374
1710031104	West Fork Illinois River	76,931	49,139 (64)	22,370 (29)			26,769
1710031105	Deer Creek	72,572	37,612 (52)	32,634 (45)			4,978
1710031106	Illinois River/Josephine Creek	81,672	70,683 (87)	42,701 (52)			27,982
1710031107	Briggs Creek	43,729	41,390 (95)	36,539 (84)			4,851

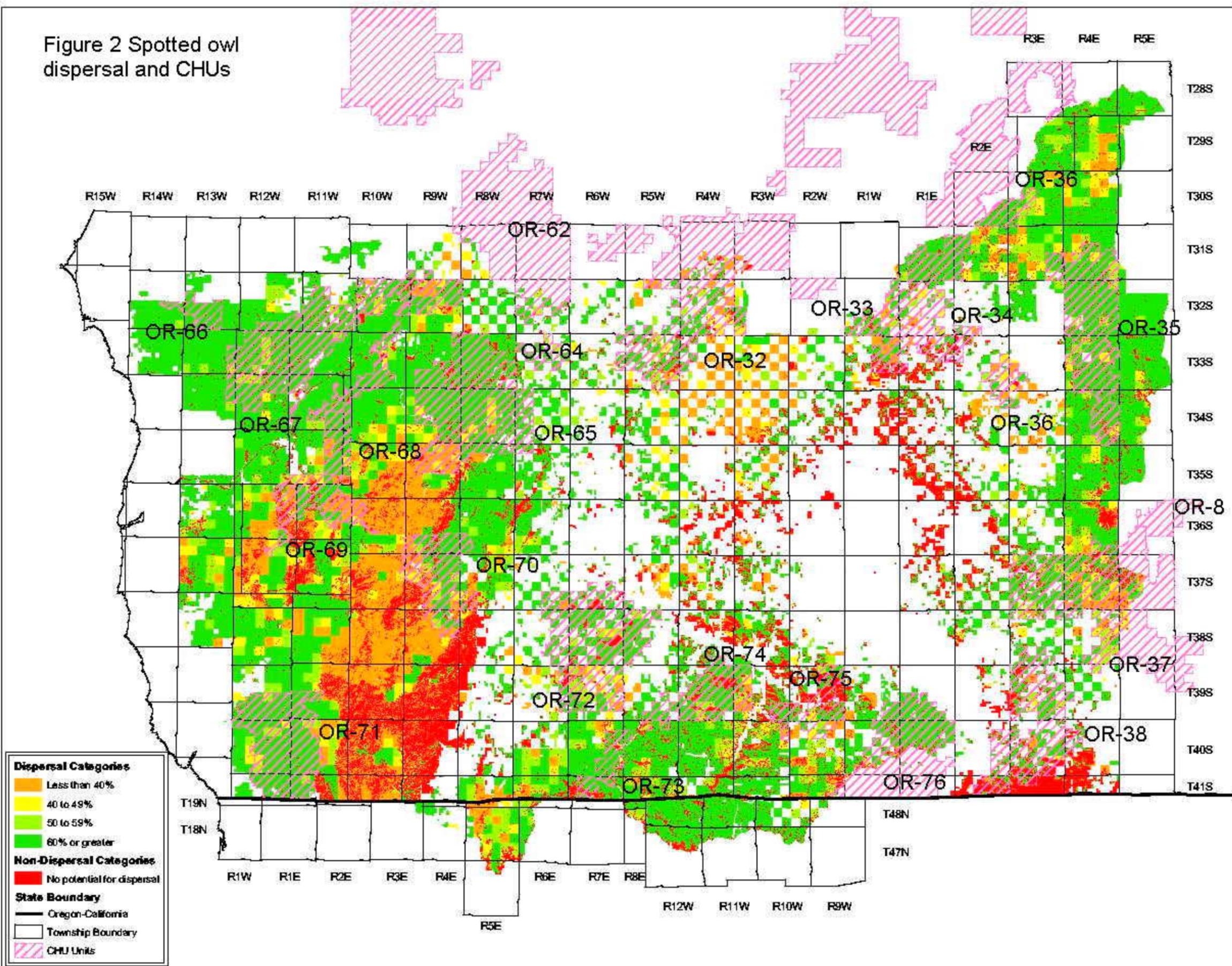
Table G-1. Northern spotted owl dispersal habitat - Rogue River National Forest (ROR), Siskiyou National Forest (SIS) and Medford BLM (MED), by 5 th Field Watershed. Grouped by Section 7 Watersheds. Federal lands outside of ROR/SIS/MED not included in Table. Many HUC5's are peripheral to the land managed by the Rogue River and Siskiyou National Forests, and the Medford District of the Bureau of Land Management. HUC5's are based on the 2002 update of HUC5 boundaries. Acre totals based on Biscuit Fire effects analysis June 03.							
HUC5 ID	Huc5 Watershed Name	HUC5 Acres	Federal Land				
			Total Federal (ROR, SIS, MED) (% of HUC5)	Total Capable (Dispersal + Capable) (% of HUC5)	All Dispersal Habitat (% of Total Capable)	Capable Only (not presently Dispersal)	Non-Capable Only
1710031108	Illinois River/Klondike Creek	67,063	67,061 (100)	57,179 (85)			9,882
1710031109	Silver Creek	51,592	51,293 (99)	43,984 (85)			7,309
1710031110	Indigo Creek	49,063	48,872 (99)	46,360 (95)			2,512
1710031111	Illinois River/Lawson Creek	41,157	39,000 (95)	33,952 (82)			5,048
TOTALS		633,140	512,740 (82)	411,071 (68)	210,183(57)	200,888	101,669
Klamath							
1801020301	Wood River	122,654	73 (>1)	65 (>1)			8
1801020302	Klamath Lake	265,442	61 (>1)	43 (>1)			18
1801020303	Fourmile Creek	74,504	1,102 (1)	456 (1)			646
1801020601	Spencer Creek	54,157	28 (>1)	26 (>1)			2
1801020603	Klamath/Copco	86,728	807 (1)	120 (>1)			687
1801020604	Jenny Creek	134,329	47,468 (35)	34,434 (26)			13,034
1801020605	Klamath River/Iron Gate	42,123	13,810 (33)	4,209 (10)			9,601
1801020607	Cottonwood Creek	63,544	5,668 (9)	1,200 (2)			4,468
1801020609	West Fork Beaver Creek	69,661	292 (>1)	241 (>1)			51
1801020610	Beaver Creek	98,606	36 (>1)	29 (>1)			7
1801020611	Grider Creek	81,768	10 (>1)	4 (>1)			6
1801020901	China Peak	67,170	503 (1)	421 (1)			82
1801020902	Indian Creek	86,270	2,116 (2)	1,157 (1)			959
1801020904	Clear Creek	71,307	1 (>1)	0 (0)			1
TOTALS		1,318,263	71,975 (5)	42,405 (3)	32,628 (77)	9,777	29,570
Little Butte							
1710030708	Little Butte Creek	238,594	111,480 (47)	80,341 (34)			31,139
TOTALS		238,594	111,480 (47)	80,341 (34)	54,093 (67)	26,248	31,139
Rogue-Lower-Lobster							
1710031007	Lobster Creek	44,254	26,793 (61)	26,186 (59)			607
1710031008	Lower Rogue	82,691	44,462 (54)	41,613 (50)			2,849
TOTALS		126,945	71,255 (56)	67,799 (53)	47,457 (70)	20,342	3,456
Rogue-Lower-Wild							
1710031004	Rogue River/Horseshoe Bend	104,084	99,843 (96)	95,064 (91)			4,779
1710031005	Rogue River/Stair Creek	36,476	35,524 (97)	34,575 (95)			949
1710031006	Rogue River/Illahe Creek	44,938	43,492 (97)	41,447 (92)			2,045
TOTALS		185,498	179,859 (97)	171,086 (92)	138,273 (81)	32,813	7,773
Rogue-Middle							
1710031001	Rogue River/Hellgate	93,317	66,794 (72)	60,124 (64)			6,670
1710031002	Jumpoff Joe Creek	69,698	21,471 (31)	19,476 (28)			1,995
1710031003	Grave Creek	104,417	50,044 (48)	45,861 (44)			4,183
1710030802	Rogue River/Gold Hill	135,959	33,053 (24)	18,184 (13)			14,869
1710030803	Evans Creek	143,280	59,231 (41)	52,497 (37)			6,734
1710030804	Rogue River/Grants Pass	53,636	12,490 (23)	10,202 (19)			2,288
TOTALS		600,307	243,083 (40)	206,344 (34)	134,917 (66)	71,427	36,739
Rogue-Upper							
1710030101	Diamond Lake	42,946	10 (>1)	10 (>1)			0
1710030104	Clearwater	49,654	6 (>1)	6 (>1)			0
1710030105	Fish Creek	53,621	9 (>1)	8 (>1)			1
1710030701	Upper Rogue River	245,447	167,476 (68)	156,954 (64)			10,522
1710030702	South Fork Rogue River	159,016	118,510 (75)	110,852 (70)			7,658
1710030703	Rogue River/Lost Creek	36,291	12,938 (36)	9,364 (26)			3,574
1710030704	Big Butte Creek	158,211	87,168 (55)	75,896 (48)			11,272
1710030705	Elk Creek/Rogue River	85,427	50,403 (59)	45,026 (53)			5,377

Table G-1. Northern spotted owl dispersal habitat - Rogue River National Forest (ROR), Siskiyou National Forest (SIS) and Medford BLM (MED), by 5th Field Watershed. Grouped by Section 7 Watersheds. Federal lands outside of ROR/SIS/MED not included in Table. Many HUC5's are peripheral to the land managed by the Rogue River and Siskiyou National Forests, and the Medford District of the Bureau of Land Management. HUC5's are based on the 2002 update of HUC5 boundaries. Acre totals based on Biscuit Fire effects analysis June 03.

HUC5 ID	Huc5 Watershed Name	HUC5 Acres	Federal Land				
			Total Federal (ROR, SIS, MED) (% of HUC5)	Total Capable (Dispersal + Capable) (% of HUC5)	All Dispersal Habitat (% of Total Capable)	Capable Only (not presently Dispersal)	Non-Capable Only
1710030706	Trail Creek	35,309	14,680 (42)	12,828 (36)			1,852
1710030707	Rogue River/Shady Cove	74,230	22,591 (30)	6,746 (9)			15,845
	TOTALS	940,152	473,791 (50)	417,690 (44)	292,039 (70)	125,651	56,101
Smith							
1801010101	North Fork Smith River	101,099	56,362 (56)	38,214 (38)			18,148
1801010102	Middle Fork Smith River	83,719	259 (>1)	132 (<1)			127
1801010104	Lower Smith River	88,745	624 (1)	624 (1)			0
	TOTALS	273,563	57,245 (21)	38,970 (14)			18,275
	GRAND TOTALS	6,616,502	2,595,853 (39)	2,188,619 (33)	1,420,042 (65)	761,956	410,243

Figure 2 Spotted owl dispersal and CHUs

Spotted Owl Dispersal Categories by Section on Bureau of Land Management and Forest Service Lands Within the Medford District (BLM), Siskiyou NF, and Rogue NF



Dispersal Categories

- Less than 40%
- 40 to 49%
- 50 to 59%
- 60% or greater

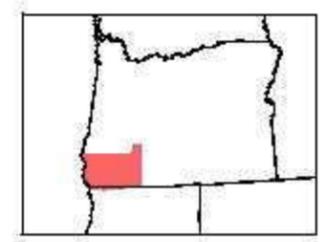
Non-Dispersal Categories

- No potential for dispersal

State Boundary

- Oregon-California
- Township Boundary
- CHU Units

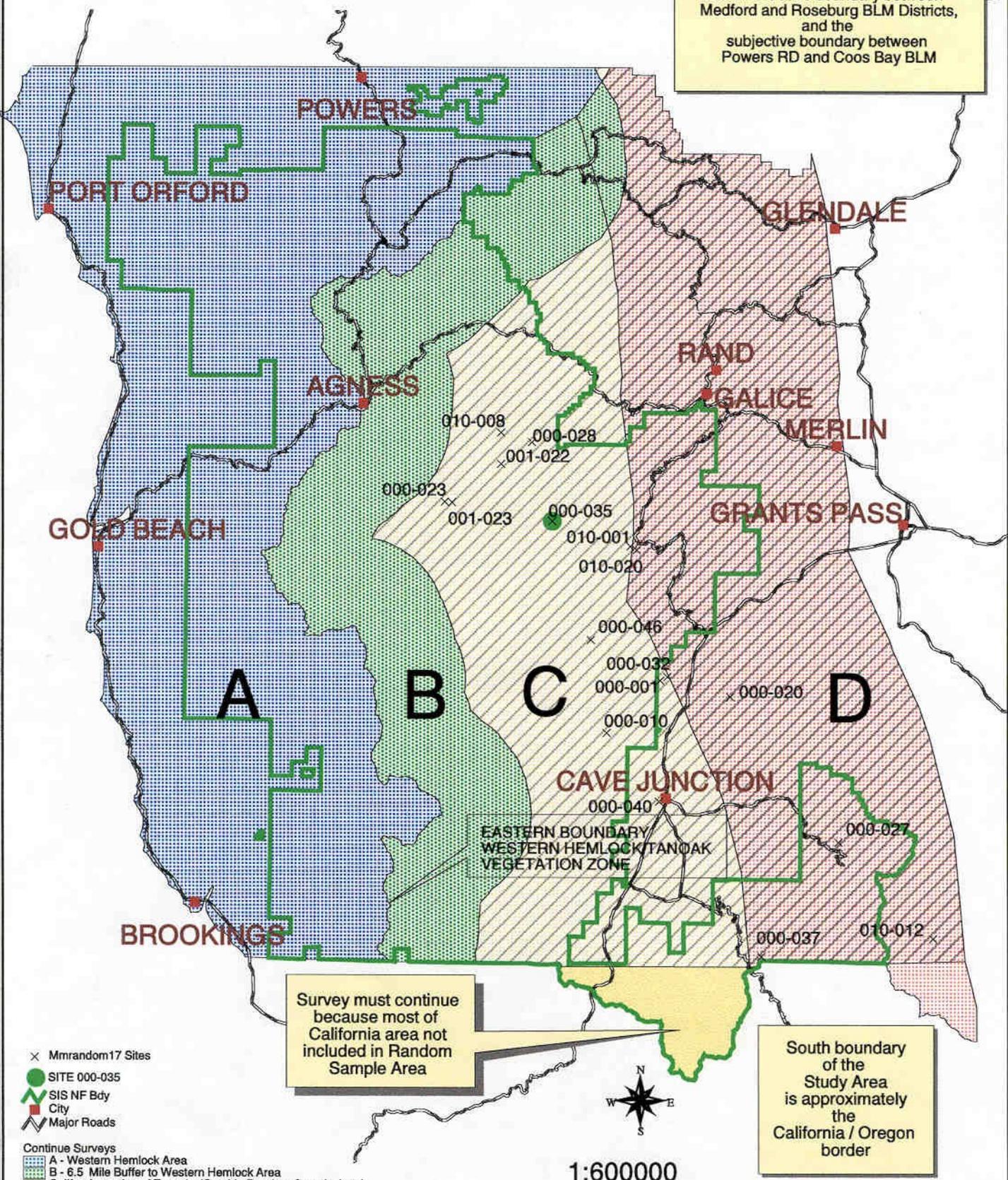
Main Map Scale
1 inch = 10.71 miles



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use without the BLM. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

SISKIYOU NATIONAL FOREST

North boundary of the Study Area is the administrative boundary between Medford and Roseburg BLM Districts, and the subjective boundary between Powers RD and Coos Bay BLM



Survey must continue because most of California area not included in Random Sample Area

South boundary of the Study Area is approximately the California / Oregon border

- × Mmrandom17 Sites
 - SITE 000-035
 - SIS NF Bdy
 - City
 - Major Roads
- Continue Surveys
- A - Western Hemlock Area
 - B - 6.5 Mile Buffer to Western Hemlock Area
 - C - California portion of Zone 1, (Outside Random Sample Area)
- Discontinue Surveys
- D - Rest of Zone 1, to 35 miles Inside Random Sample Area
 - D - 35 - 50 Miles, Zone 2

1:600000

Figure 3 - 17 Marbled Murrelets Random Sample Areas (detection of BRMA at site 000-035)

Appendix J. Southwest Oregon – Change in Inland Survey Area for Marbled Murrelet, Survey Map, and CHU Map.

1. Letter from USDI Fish and Wildlife Service (6 May 2002) to The Rogue River and Siskiyou National Forests, and Medford District of the Bureau of Land Management, confirming FWS support of the Action Agencies' recommendation to **discontinue surveys for marbled murrelets in zones C and D**. The citation for the FWS letter is: *Technical Assistance on the Final Results of Landscape level Surveys for Marbled Murrelets in Southwest Oregon [FWS reference: 1-7-02-TA-6401]* (attached below). The Action Agencies had made this recommendation in their March 2002 report *Results of Landscape Level Protocol Survey of Survey Zones 1 and 2 for Marbled Murrelets in SW Oregon*. The California portion of the Siskiyou Forest was not included in the study area. The Action Agencies' report is on file at the Rogue River/Siskiyou National Forests Supervisor's office, and the Medford District office of the Bureau of Land Management. A draft of the Action Agencies' report was included in the FY01/02/03 Programmatic Biological Assessment for Timber Sales.
2. **Map of Marbled Murrelet Survey "Areas."** Area A is the Known Range of marbled murrelet in SW Oregon. Area B is a "survey buffer" related to Area A. Surveys for marbled murrelet are required only in Areas A and B (see below: *Technical Assistance on the Final Results of Landscape level Surveys for Marbled Murrelets in Southwest Oregon [FWS reference: 1-7-02-TA-6401]*).
3. **Map of Critical Habitat Units** for Marbled Murrelet in SW Oregon.

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Oregon Fish and Wildlife Office
2600 S.E. 98th Avenue, Suite 100
Portland, Oregon 97266
(503) 231-6179 FAX: (503) 231-6195

Reply To: 8330.6402 (02)
File Name: finalletter.wpd
TS Number: 02-423

May 6, 2002

Thomas K. Reilly
Acting Forest Supervisor
Rogue River and Siskiyou National Forests
333 W 8th Ave.
Medford, OR 97501

Ron Wenker
District Manager, Medford District
Bureau of Land Management
3040 Biddle Road
Medford, OR 97504

RE: Technical Assistance on the Final Results of Landscape level Surveys for Marbled Murrelets in Southwest Oregon [FWS reference: 1-7-02-TA-6401].

Dear Mr. Reilly and Mr. Wenker:

The U.S. Fish and Wildlife Service (Service) has reviewed the report entitled Southwest Oregon Inland Survey Assessment for Marbled Murrelets, dated March 4, 2002 and your letter of the same date. We received the final report in this office on March 22, 2002. This study is the result of many years of effort and we acknowledge the Forest Service and Bureau of Land Management (BLM) for completing the study and working collaboratively with the Service.

This study was conducted throughout Southwest Oregon on lands administered by the Siskiyou and Rogue River National Forests and the Medford District BLM. The study area was divided into four zones (A, B, C, and D) representing areas at increasing distances from the Oregon coast, and closely tied to the transition from the hemlock/tanoak vegetative zone to the more inland mixed conifer/mixed evergreen zone. Zones C and D represent the mixed conifer/mixed evergreen zone and extend to 50 miles inland. These zones were modified based on the marbled murrelet zones 1 and 2 as described by the Forest Ecosystem Management Assessment Team.

The study provides results on the occurrence of murrelets within the four inland zones and a statistically valid approach that evaluates the likelihood of murrelets occurring at the two farthest inland zones (C and D). Murrelets were not detected during the study in zones C and D with the exception of one survey visit where audible calls only were heard. Although this single observation occurred, based on the number and years that surveys were conducted, and the statistical modeling that showed a very low likelihood of murrelet occurrence, we agree that any impacts to the species in zones C and D would be negligible. Furthermore, we

believe the application of these results is consistent with the marbled murrelet recovery plan because intensive surveys and analytical methods were used to more accurately delineate the inland boundary of nesting habitat. Consequently, we support the recommendation to discontinue surveys for marbled murrelets in zones C and D as defined in the final report (excluding the California portion of the Siskiyou Forest). We also suggest that future Land and Resource Management Plans or Resource Management Plans would be appropriate documents to update marbled murrelet zones where surveys would continue.

We encourage you to continue study on the inland distribution of the murrelet, particularly to the south where other Federal lands are adjacent to your lands. The Six Rivers and Klamath National Forests have conducted similar studies to define the inland extent of murrelets. However, the remaining gap in these studies and yours is the Oregon/California border south to the Klamath River.

If questions arise concerning this letter, please contact Lee Folliard or Nancy Lee at (503) 231-6179.

Sincerely,
Kemper M. McMaster
State Supervisor

cc: Regional Office, OTS, Attn: Paul Phifer
California Coastal Field Office, Attn: Lynn Roberts
Roseburg Field Office, Attn: Craig Tuss
Yreka Field Office, Attn: John Hamilton
Western Washington Field Office, Attn: Kim Flotlin
Siskiyou National Forest, Attn: Lee Webb
Forest Service Region 6, Attn: Sarah Madsen
Bureau of Land Management, Attn: Joe Lint

Rogue River/South Coast Basins Critical Habitat Units - Marbled Murrelet

July 02, 2003

