B. DESCRIPTION OF STUDY AREA

The Study Area is located in western Oregon and is primarily within the Oregon Coast Province, delineated by the Northwest Forest Plan (see Vicinity map). All national forest and BLM lands, except East Fork Nehalem, that fall within the Province and all Siuslaw National Forest lands that fall outside the Province are included. The area outside the Province is limited by fifth-field watersheds in which Siuslaw NF lands are located. These include four in each of the Willamette and Southwest Oregon Provinces (see Map B.1, Assessment Area).

The Oregon Coast Province is about 2.95 million acres and extends from the Columbia River to the Umpqua River basin. The Study Area occupies about 71% of the Province and very small portions of two others. Within the 2.4 million-acre Study Area are five entire river basins--Wilson-Trask-Nestucca, Siletz-Yaquina, Alsea, Siuslaw, and Siltcoos-- and small portions of four others--Yamhill, Upper Willamette, Umpqua and Coos; 66 fifth-field watersheds have been delineated around federal lands (see Map B.2, River Basins & Watersheds.) Three river basins in the northernmost end of the Oregon Coast Province are not included because they contain no national forest land and only small fragmented areas of BLM and National Park Service lands.

LANDOWNERSHIP

Landownership in the Study Area is a patchwork primarily of federal and private lands. Most of the area is under either federal management (38%) or private industrial forestry (31%) (see Map B.3, Private Lands). The State owns 13% and the remaining land (18%) is in private ownership, with only small portions owned by cities, counties, or Indian tribes (Table B.1). A complete list of landownership by river basin and fifth-field watershed is provided in Appendix B.1. Names of the sixth-field watersheds associated with each fifth-field watershed is provided in Appendix B.2.

The largest human settlement, Tillamook, is in a wide valley in the northern part of the Study Area. Other settlements include coastal ports, small coastal communities, mountain communities, and small valley communities. Today, all the very large valley communities are located east of the Study Area along the I-5 corridor running the length of the Willamette Valley.

Table B.1 Landownership in Study Area

River basin	Acres	5th-field Watersheds	Landownership (%) Federal	State	Pvt.-Ind.For.	Other
Wilson-Trask-Nestucca	602,400	13+	26	37	21	16
Yamhill	488,700					
In Study Area	34,600	2	19	0	51	30
Siletz-Yaquina	478,400	10+	16	5	58	21
Upper Willamette	1,198,300					
In Study Area	20,400	2	48	3	30	19
Alsea	436,300	16	64	0.2	19	17
Siuslaw	493,300	12	52	4	30	14
Umpqua	977,100					
In Study Area	178,500	4	46	10	28	16
Siltcoos	81,300	4	38	7	36	19
Coos	459,100					
In Study Area	79,900	3	18	30	22	30
TOTAL	2,405,100	66	38	13	31	18

Note: Of the total acres, 2,091,700 are in the Oregon Coast Province; 313,400 acres are in the other provinces.

NORTHWEST FOREST PLAN

In April 1994, the Northwest Forest Plan (the Plan) was signed by the Secretaries of Agriculture and Interior as the culmination of years of federal agency efforts to address heated controversies about managing federal forests in the Pacific Northwest. The Plan was a landmark product of interagency cooperation and scientific analysis resulting from the President's Forest Conference of April 1993.

The Plan provides a network of late-successional forests and an interim and long-term scheme for protectiing aquatic and associated riparian habitats adequate to provide for threatened and "at-risk" species associated with such habitats. The federal lands were allocated to various management emphases with

specific standards and guidelines. A summary of land allocations in the Study Area follows:

Designated Areas

Congressionally Reserved Areas
Three Wildernesses (Cummins Creek, Drift Creek, and Rock Creek), Cascade Head Scenic Research Area, and Oregon Dunes National Recreation Area on the Siuslaw National Forest; and Yaquina Head Outstanding Natural Area on the Salem District BLM.

Late-Successional Reserves (LSR)
Areas identified to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth-forest related species, including the northern spotted owl.

The Study Area contains six uniquely identified LSRs, totaling about 637,000 acres (70% of the area), including one that is an aggregation of Late-Successional Old-Growth (LSOG) blocks and marbled murrelet sites in the Hebo Ranger District. Table B.2 lists the LSRs and size of each (see Map B.4 for locations of LSRs).

Table B.2. Late-Successional Reserves in the Study Area

	NF LANDS				
LSR	LSR	Admin. W.	Total	BLM Lands	TOTAL
LSR LO269 (Hebo LSOGS)	66,571	7,418	73,989	0	73,989
LSR RO269	15,940	110	16,050	3,205	19,255
LSR RO270	0	0	0	5,968	5,968
LSR RO268	243,167	6,524	249,691	80,268	329,959 1/
LSR RO267	63,933	1,914	65,847	61,780	127,627
LSR RO265	21,470	4,060	25,530	?	25,530
TOTAL	411,081	20,026	431,107	151,221	582,328

1/ Acreage excluding the 3 Wildernesses, which also contribute to late-successional conditions.

Note: Comparison of LSR acres with other data tables in this assessment should not be made. Data for the GIS layers come from more than one source, with more than one scale. Consistencies between data layers have not been resolved yet.

Adaptive Management Area (AMA)

An area identified with the objective of developing and testing new management approaches to integrate and achieve ecological and economic health, and social objectives.

The Study Area contains the Northern Coast Range Adaptive Management Area in the northern portion of the Province. The entire AMA is about 1.3 million acres, of which about 250,000 acres are on federal land. Only a portion of the AMA (about 896,000 acres) falls within the Study Area. Of the federal portion in the Study Area, about 51,000 acres are AMA lands and 111,600 acres are Late-Successional Reserves, including LSOGs and murrelet habitat sites.

Objectives for the Northern Coast Range AMA are: 1) to restore and maintain late-successional forest habitat, consistent with marbled murrelet guidelines, 2)to provide significant opportunity for the state to participate in a major cooperative adaptive management effort, and 3) to provide opportunity for interspersed privately owned forest lands to be incorporated into a plan for the area, if landowners so desired.

Land in the AMA outside of reserves is available for scheduled timber harvests, and timber volume is counted as part of the Probable Sale Quantity (PSQ).

Administratively Withdrawn Areas

Areas identified in current Forest Plans or BLM Resource Management Plans (RMPs) that were withdrawn from timber management to meet recreation, scenic, wildlife, or other management objectives that are incompatible with scheduled timber harvests.

Within the Siuslaw National Forest, these designated areas include the following:

- Special Interest Areas (Mt. Hebo, Cape Perpetua, Marys Peak and Kentucky Falls),
- Cascade Head Experimental Forest,
- Research Natural Areas,
- coastal recreation areas (Sand Lake and Sutton Area),
- bald eagle management areas, and
- undeveloped/unroaded recreation areas (Boulder Creek and Wassen Creek).

All of these areas are included within LSRs and must additionally contribute to LSR objectives. One exception currently is the Mt. Hebo Special Interest Area (SIA) meadows, which are managed as habitat for the threatened Oregon silverspot butterfly.

Such BLM lands are designated as Areas of Critical Environmental Concern (ACECs), including Research Natural Areas and Outstanding Natural Areas (see list in Appendix B.3).

Riparian Reserves

These are areas along all streams, wetlands, ponds, lakes, and unstable and potentially unstable areas where riparian-dependent resources receive primary emphasis. Riparian Reserves are also intended to serve

terrestrial species' needs, such as dispersal habitat. (A detailed description of the purpose of Riparian Reserves is provided in the Aquatic and Wildlife Section of this report.)

On the Siuslaw National Forest, interim Riparian Reserve widths are as follows:

1. Fish-bearing streams--520 feet slope distance (a distance equal to the height of 2 site-potential trees) along each side.
2. Permanently flowing nonfish-bearing streams--260 feet slope distance (a distance equal to the height of 1 site-potential tree) along each side.
3. Intermittent streams--260 feet slope distance (height of 1 site-potential tree) along each side.
4. Wetlands >1 acre--the body of water or wetland, and the distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the wetland, whichever is greater.
5. Wetlands <1 acre and unstable and potentially unstable areas--from the edge of wetland to the outer edges of riparian vegetation, or 100 feet slope distance, whichever is greater.

Analysis of Riparian Reserve allocations in the Study Area indicate they include 80-90% of the total Forest land. Watershed analysis, site-specific analysis, or both are required to finalize Riparian Reserve widths along particular streams and wetlands.

The Bureau of Land Management applies other criteria to their lands to determine riparian reserve widths. Where site potential tree heights are used, a different measurement may be used.

Matrix

These are federal lands outside of the designated areas listed above, where management is based on provisions of the Siuslaw Forest Plan or BLM District RMPs. Matrix is available for scheduled timber harvests, and timber volume is counted as part of the Probable Sale Quantity.

Table B.3 displays percentage of federal lands in each land allocation. Riparian Reserve acres have not been removed from the land allocation summary. Map B.5 displays the Northwest Forest Plan land allocations, and Map D.3 shows interim Riparian Reserves for the Siuslaw National Forest portion of the Study Area.

Key Watersheds

Twenty key watersheds (Tier 1) are within the Study Area and occupy about 17% of the area. Key Watersheds are intended to help conserve at-risk anadromous salmonids and resident fish species. Table B.4 lists Key Watersheds by river basin and indicates the size of each. For those Key Watersheds that are only a portion of a fifth-field watershed, the name of the fifth-field watershed is shown. Map B.6 provides an overlay of Key Watershed locations in the Study Area.

Table B.3 Northwest Forest Plan Allocations (Acres)

River basin (RB)	Federal land	Federal land in RB, %	Plan Allocations: Cong. desig	LSR	AMA	Admin. Withdr.	Matrix
			(Acres and percentage of river basin)				
Wilson-Trask-N	155,800	26	3076 2%	98,549 63%	45,466 29%	7473 5%	0
Yamhill[1/]	6,700	1	-	6347	189	-	-
Siletz-Yaquina	76,900	16	3786 5%	60,368 78%	3,466 5%	2890 4%	5259 7%
Upper Willamette[1/]	9900	1	-	8649	-	461	733
Alsea	281,000	64	22,214 8%	204,169 73%	-	8965 3%	45,407 16%
Siuslaw	256,200	52	1460 <1%	197,623 77%	-	400 <1	58,456 23%
Umpqua[1/]	83,000	8	1282	48,012	-	5995	26,187
Siltcoos	31,000	38	13,206 43%	13,664 44%	-	-	4655 15%
Coos[1/]	14,500	6	13700	-	-	-	-
TOTAL	915,000	38%	58,724 6%	637,381 70%	49,121 5%	26,185 3%	140,707 15%

C = Congressionally Designated, LSR=Late-Successional Reserve, AMA=Adaptive Management Area, Admin. With.= Administratively withdrawn, RB=river basin

[1/] Only a small portion of the river basin is in the Study Area.

Table B.4 Key Watersheds by River Basin

River Basin	Key Watershed	Acres
Wilson-Trask-Nestucca	Kilchis River	6,931
	Little N.Fork Wilson River (in Wilson River)	11,881
	Elkhorn Creek (in Upper MF Trask)	10,468
	Upper Nestucca River incl. Boulder/Tony/Limestone, Powder/Niagara Creeks	90,072
Siletz-Yaquina	Drift Creek-Siletz (in Schooner)	26,464
	N.Fork Siletz River/Warnicke Creek (in Upper Siletz)	11,547
	Mill Creek (in Toledo)	2,899
Alsea	N.Fork Beaver Creek (in Beaver)	7,546
	Drift Creek-Alsea	43,160
	Upper Lobster Creek (in Lobster Creek)	26,391
	Tobe Creek (in S.Fork Alsea)	1,856
	Yachats River	27,754
	Cummins/Tenmile/Rock/Big Creeks	40,979
	Bailey Creek (in Mercer)	2,973
Siuslaw	N.Fork Siuslaw River (in N.Fk.Siuslaw River)	14,140
	W.Fork Indian Creek (in Indian)	8,837
Siltcoos	Upper Fiddle Creek (in Siltcoos)	6,373
Umpqua	N.Fork Smith River	43,887
	Wassen Creek (in Smith)	17,788
	Franklin Creek (in Lower Umpqua)	4,588
TOTAL		406,534

Summary

When landownership patterns in the Oregon Coast Range Province are considered as a whole, allocating a large portion of federal lands to Late-Successional Reserves and Riparian Reserves seems most appropriate. Federal lands occupy only about 27% of the entire Province, and 38% of the Study Area. Industrial

forest lands occupy 31% of the Study Area. If large, unfragmented blocks of mature conifer forests are to be created for species associated with such habitats, federal lands are the most likely places. Likewise, if anadromous stream habitats are to be restored in the short run, or until more comprehensive land stewardship programs for watersheds can be initiated, federal lands must play a leading role. Large, interim Riparian Reserves encourage greater understanding of how to manage watersheds before remaining potential fish habitat is degraded.