

Section I

The Planning Context and The Plan Area

Purpose of Habitat Conservation Plan

The Oregon Department of Forestry is seeking a permit from the U.S. Fish and Wildlife Service (USFWS) for the incidental take of northern spotted owls and marbled murrelets. The permit is in connection with a comprehensive forest management plan that details management activities on the Elliott State Forest, which is located in the Oregon coast range, in Coos and Douglas Counties. Management of the Elliott includes timber harvest, reforestation, young growth management, and related activities. Legal requirements for management of the Elliott are described in the following subsection. Key terms used in this section are defined on page I-3.

The northern spotted owl and marbled murrelet are federally listed as threatened species, and are both found in the Elliott State Forest. The Department of Forestry proposes to manage the northern spotted owl and marbled murrelet, and their habitat on the Elliott, according to a habitat conservation plan (HCP) for these species. The habitat conservation plan (this document) has been prepared as part of the application for the incidental take permit. It specifies the impact that will likely result from any taking that may occur under the plan; what steps the Department of Forestry will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps; what alternative actions to possible taking have been considered and the reasons why such alternatives are not being selected; and other measures that may be required as necessary or appropriate for purposes of the plan. The Department of Forestry does not plan to harm, harass, hunt, or otherwise injure spotted owls and marbled murrelets. However, the Department proposes to remove some potential habitat for both species in the course of management activities.

The habitat conservation plan is accompanied by an environmental assessment (EA). The EA informs the public about the environmental analysis done in developing the HCP and applying for the incidental take permit. It describes alternative methods for managing northern spotted owls, marbled murrelets, and their habitat, on the Elliott State Forest. It also describes what the environmental effects of each alternative would be. The preferred alternative is the basis for the habitat conservation plan. The EA will be used by the USFWS to determine if issuance of the incidental take permit would result in significant effects to the human environment. If significant effects are not found, a Finding of No Significant Impact (FONSI) will be prepared. If significant impacts are found, an Environmental Impact Statement must be prepared.

Legal and Policy Mandates for Management of the Elliott State Forest

The Department of Forestry manages the Elliott State Forest according to several legal requirements described below and on the next page.

The Elliott State Forest has 93,564 acres. Most of the Elliott State Forest (84,734 acres or 90.5%) is Common School Forest Land. These lands are owned by the State Land Board, and are managed by the Department of Forestry under a contract with the State Land Board. The Oregon Constitution (Article VIII, Section 5) charges the State Land Board to manage the Common School Forest Lands “with the object of obtaining the greatest benefit for the people of this state, consistent with conservation of this resource under sound techniques of land management.”

According to a 1992 opinion of Oregon’s Attorney General, the “greatest benefit for the people” standard requires the State Land Board to use the lands for schools and the production of income for the Common School Fund. The resources of the lands are not limited to those such as timber that are currently recognized as revenue generators for the Common School Fund. The Land Board should consider other resources, such as minerals, water, and plant materials, that may offer revenue for the fund. In addition, the Land Board may take management actions that reduce present income if these actions are intended to maximize income over the long term.

The primary objective for Common School Forest Land is to generate the greatest amount of income for the Common School Fund in the long run as is consistent with sound techniques of land and timber management. Consideration is given to the need to protect soils, streams, wildlife habitat, recreational opportunities, and other environmental values.

The rest of the Elliott (8,830 acres or 9.5%) is Board of Forestry Land. These lands were deeded by the counties to the Board of Forestry during the 1930s and 1940s, and are managed by the Department of Forestry. One of the objectives on Board of Forestry Lands is to provide revenue for the counties and local taxing districts. These lands are managed to “secure the greatest permanent value to the state,” as defined by the statutes. See Appendix J for more details on the legal and policy mandates for management of the Elliott.

The Department of Forestry legally must meet the requirements of the federal Endangered Species Act (ESA) for all listed species, including the northern spotted owl and marbled murrelet. The Department of Forestry is applying for an incidental take permit for owls and murrelets from the U.S. Fish and Wildlife Service. The permit is the most efficient and effective way for the Department of Forestry to meet both the federal ESA requirements and its statutory responsibilities to the State of Oregon. The permit would cover only the Elliott State Forest.

Key Terms

Critical habitat — The specific areas within the general geographic area occupied by a federally listed species on which are found physical and biological features essential to the conservation of the species, and that may require special management considerations or protection. Critical habitat is designated by USFWS pursuant to the Endangered Species Act.

Endangered species — A species in danger of becoming extinct throughout all or a significant portion of its range.

Federally listed — Formally listed as a threatened or endangered species under the federal Endangered Species Act; designations are made by the USFWS.

Habitat Conservation Plan (HCP) — An implementable program for the long-term protection and benefit of a species in a defined area; required as part of a Section 10 incidental take permit application under the federal Endangered Species Act.

Harass — An intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (Code of Federal Regulations, 50 CFR 17.3)

Harm — An act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (Code of Federal Regulations, 50 CFR 17.3)

Incidental take — The taking of a federally listed wildlife species, if such taking is incidental to, and not the purpose of, carrying out otherwise lawful activities.

Take — To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a species, or to attempt to engage in any such conduct (ESA, Section 3[19]).

Threatened species — To be federally listed as a threatened species, a species must be likely to become endangered in the foreseeable future.

Regional Context — Land Ownership and Use

The south Oregon coast region is defined as the geographic area in the southern one-third of the Oregon Coast Range physiographic province. More specifically, this area encompasses the area from Coos Bay and the Oregon Dunes National Recreation Area on the west to near Roseburg on the east, and from Highway 42 on the south to 12 miles north of Highway 38. The region encompasses approximately 5 million acres.

The Elliott State Forest is expected to fill a transitional and progressively graduated niche between the older forests to the north and east and the younger forests to the south and west. The forest must be viewed in context with the national forests, Bureau of Land Management, and private landowners in the region. This view looks at both timber production and environmental protection.

The proposed role of the Elliott State Forest for spotted owl and marbled murrelet habitat protection is described in this HCP. The Elliott State Forest Management Plan has defined the role of the forest for timber production and other forest resources in context with other public and private ownerships in the south coast region.

In the south Oregon coast timbershed region centered on Coos and Curry counties, approximately 49% of forest land is in public ownership; the Elliott State Forest is about 10% of that total (Sessions et al. 1989). After public ownerships, private industrial timberlands comprise the next largest category of adjacent ownership, including Weyerhaeuser and International Paper lands. Other private lands with multiple owners and uses are interspersed with industrial timber land and federal holdings. Commercial timber operations predominate on private land areas.

Land Management on Federal Lands

There are federal lands north, east, and southeast of Elliott State Forest. To the north, across the Umpqua River, is Siuslaw National Forest land. To the east and southeast are Bureau of Land Management (BLM) lands, most of which are intermixed with private lands in a checkerboard pattern of alternating square-mile sections. Land management on all federal lands near the Elliott will follow the management direction given in the Record of Decision for the Final SEIS (USDA Forest Service et al. 1994a & b). Management direction pertinent to this HCP is summarized briefly below. See also the heading “Northwest Forest Plan” on page I-25 for a brief, general description of federal management direction.

Large amounts of the federal lands near the Elliott are designated as late successional reserves. These reserves will be managed to protect and enhance habitat for late successional and old growth-related species, including the spotted owl. Limited stand management will be permitted, to maintain and protect late successional forest ecosystems.

Federal lands north and southeast of the Elliott include several key watersheds. The key watersheds will be managed to provide high quality habitat for at-risk anadromous fish

stocks and resident fish species. Key watersheds overlay other land designations. Timber harvest may occur in parts of key watersheds that are also designated as matrix lands, after a watershed analysis is completed.

The remaining federal lands in the south Oregon coast region are designated as matrix lands. These lands are available for regularly scheduled timber harvest. Standards and guidelines require that 100 acres of owl habitat be protected around known owl activity centers on matrix lands. For BLM lands in the region, a number of 640 acre blocks will be managed on a 150 year timber rotation, as connectivity/diversity blocks. For these blocks, 25-30% of the block must be kept in late successional forest at any time. Other matrix lands may be managed on other timber rotations.

All federal lands near the Elliott are in Marbled Murrelet Zone 1, and will be surveyed for murrelet occupation before any projects take place. All murrelet occupied sites on federal lands will be protected with a 0.5 mile radius circle where no timber harvest will take place.

Privately Owned Timber Lands

Most privately owned timber lands near the Elliott currently have younger, early successional forests. It is likely that these lands will continue to be managed for early successional forests.

The map following page I-6 shows the forest types of southwestern Oregon. The map on the following page shows the forest land ownerships in the south Oregon coast region. The two tables before the maps show additional information about the Elliott's regional context. Table I-1 shows the regional vegetation cover types. Table I-2 provides more information about the south coast timbershed's conifer forests, showing how much conifer forest land is available for timber harvest (i.e., not in reserves or other non-harvest allocations), and the total timber volume currently growing on the timbershed.

Table I-1. Regional Vegetation Cover Types

Vegetation Type	Acres	Percent of Total
Conifer forest	4,109,253	77%
Hardwood forest	890,138	17%
Non-forest areas	366,141	6%
Total area	5,355,532	100%

Source: Oregon State Service Center for Geographic Information Systems (Salem).

**Table I-2. South Coast Timbershed
Conifer Forests and Growing Stock ¹**

Owner	Available for Harvest (Thousand acres)	Not Available for Harvest (Thousand acres)	Available Growing Stock² (million cubic feet)
Public Forest Lands			
National Forest	287	170	819
Bureau of Land Management	167	44	642
State and Other	59	14	331
Private Forest Lands			
Forest Industry	551	0	1177
Nonindustrial	218	0	492
Total	1,282	228	3,461

Source: Sessions, J. et al., Timber for Oregon’s Tomorrow — The 1989 Update. The Northwest Forest Plan (Final SEIS) changes the number of acres available for harvest on federal lands; an exact acreage figure for the south Oregon coastal region is not currently available.

1. This table shows how much conifer forest land is available for timber harvest in the region (i.e., not in reserves or other non-harvest allocations).
2. **Available growing stock** — Total timber volume growing on acres available for harvest. Not all volume is large enough for harvest. Growing stock volume is calculated as follows: .
 - National forest lands** — for natural stands, includes all stands with an average 9 inch DBH (diameter breast height), tapering to a 6 inch top; for managed stands, includes all stands with an average 7 inch DBH, tapering to a 4 inch top.
 - Bureau of Land Management and state forest lands** — includes all stands with an average 7 inch DBH, tapering to a 4 inch top.
 - Private lands** — includes all stands with an average 5 inch DBH, tapering to a 4 inch top.

Regional Social and Economic Context

The Elliott State Forest comprises only about one-third of one percent of Oregon's forest land, and so it does not have a major immediate impact on the state's economy. The Elliott is very important, however, to the local communities dependent on the forest's resources. Ongoing economic dislocations at the local level should be recognized, and the economic impacts should be viewed as part of larger, long-term trends affecting state and local economies.

Most current economic activity generated by the Elliott is related to timber harvesting. The Elliott's resource outputs have the greatest economic impact on the lumber and wood products industries, while indirect and "ripple" effects are felt widely throughout local economies.

The northern spotted owl and marbled murrelet were listed as threatened species in 1990 and 1992, respectively. Before the listings, the Elliott State Forest's sustainable timber harvest level was approximately 50 MMBF (million board feet) per year (Oregon Department of Forestry 1987). An average of 46.4 MMBF per year was harvested during the period 1983 to 1987. With implementation of the habitat conservation plan, timber harvest will be approximately 27.9 MMBF per year.

Many rural areas in Oregon are more dependent on the forest products industry than the state as a whole. Rural areas around the Elliott, which are most directly affected by the forest's management, are highly dependent on the forest products industry. Table I-3 shows the South Coast regional population, along with the amount of timber-dependent employment and overall unemployment rates in the three counties most closely associated with the Elliott. In 1992, the percentage of unemployment directly related to the timber industry was 27.5% for Coos County, 38.3% for Douglas County, and 7.5% for Curry County (Oregon Employment Department 1994). Table I-4 on the next page shows the sources of personal income in Coos and Douglas Counties, showing the contribution of the timber industry to local income. Timber-dependent employment represented 13% of personal income in Coos County, and 27% in Douglas County, in 1991.

Table I-3. South Coast Regional Population and Unemployment					
County	1980 Population	1990 Population	1992 Population	1992 Timber- Dependent Employment	1992 Unemployment
Coos	64,047	60,273	62,100	2,283	11.3%
Douglas	93,748	94,649	96,300	7,178	12.0%
Curry	16,992	19,327	21,400	786	8.5%
Total	174,787	174,249	179,800	10,247	—

Sources: Oregon Employment Division, Western Oregon Timber Industry Analysis (June 8, 1993); Portland State University, Center for Population Research & Census (1993).

Table I-4. Sources of Personal Income in Coos and Douglas Counties in 1991 ¹				
Source of Income	Coos County		Douglas County	
	Personal Income 1991 (Millions of \$)	Percentage	Personal Income 1991 (Millions of \$)	Percentage
Timber	122	13	381	27
Tourism	52	6	62	4
Agriculture	21	2	25	2
Commercial fishing	21	2	— ²	— ²
Transfers ³	227	24	327	23
Investment	171	18	247	17
Other	329	35	388	27
Total	943	100	1,430	100

1. Source: Prepared by Hans D. Radtke, social and economic consultant (see page C-10).
2. Less than 1%.
3. Transfers include retirement and related programs; and unemployment insurance, public assistance, and other social welfare programs.

As summarized in Table I-5 on the next page, 1990 census data (Murphy and Seidel 1993) also show that Coos and Douglas County populations have characteristics that indicate they may be more vulnerable to economic downturns, and that workers in both counties may have fewer options than in other areas of the state. County populations have lower median household incomes, a larger percentage of the population in poverty, and less education when compared to the rest of Oregon. For example, 20.6% of Oregon residents over 25 years old have completed 4 or more years of college, while only 12.3% of Coos County residents and 11.7% of Douglas County residents have completed 4 or more years of college.

Table I-5. Population and Household Characteristics of Coos and Douglas Counties, Compared to Statewide Statistics ¹

Characteristic	Area		
	Oregon	Coos County	Douglas County
Median household income, 1989	\$27,250	\$22,146	\$23,693
Percentage of households below poverty, 1989	12.1	16	13.9
Percentage of population to graduate from high school over 25 years	81.5	75.5	74.5
Percentage of population with 4 or more years of college	20.6	12.3	11.7

1. Source: Oregon Census Abstract, Oregon Housing and Community Services Department, 1993. Statistics apply to 1989 or 1990.

Elliott State Forest — Location and Land Use Classifications

The Elliott State Forest is in the Oregon Coast Range. The closest cities and towns are Coos Bay and North Bend southwest of the Elliott, and Reedsport northwest of the Elliott. The forest is a contiguous block of land about 18 miles long (north to south), and about 16 miles wide (west to east). The Umpqua River and Highway 38 are immediately to the north of the forest. On the west, the Elliott extends within 6 miles of the ocean. On the east, it extends about 21 miles inland, to the crest of the coast range. The Elliott State Forest covers approximately 93,000 acres, or about one-third of one percent of Oregon's total forest land base (Oregon Department of Forestry 1988). The forest is located in Coos and Douglas Counties.

In legal terms, the Elliott State Forest is located in Township 22 South, Ranges 10, 11, and 12 West; Township 23 South, Ranges 10, 11, and 12 West; and Township 24 South, Ranges 10, 11, and 12 West.

Land Use Classifications

The land use classification system applies to both Common School Forest Lands and Board of Forestry Lands. The State Land Board or the Board of Forestry, as appropriate, must approve any significant land use reclassifications. Minor changes such as correcting boundaries or changing the land use subclassification do not require approval.

State forest lands are classified into two main categories: Production and Nonproduction. These are further subdivided into more detailed classifications.

Production Lands

Production lands are those areas where timber production is the primary use. On the Elliott, 94.7% of the forest is classified as production land. There are three kinds of production land.

- **Regular “production” lands** — These lands comprise 91% of Elliott State Forest. About 11.8% of the area classified as production is actually not suited for timber production and is reserved from management. The unsuited areas include 7.3% for streams and riparian areas, 3% for noncommercial areas, and 1.5% for inaccessible or unloggable areas, for a total of 11.8%. These areas are classified as production because their size and shape makes them impractical to map and inventory separately.
- **“Scenic production” lands** — These areas are managed for timber production, but need harvest modifications to protect or enhance scenic values. Scenic production areas may be transition areas between highways, rivers, lakes, or populated areas, or located by areas with high recreational use. These lands comprise 3.7% of the Elliott. They are primarily associated with the forest slopes that are visible from Highway 38, Loon Lake Road, West Fork Millicoma River, and Loon Lake itself.

Background Information

The discussion of “Land Use Classifications” has a lot of information involving acreages. Note that three different methods have been used to estimate acreage amounts in this HCP, including OSCUR inventory data and GIS, and while the numbers may appear to be precise, they are approximations.

Legal acres — Based on land survey information, the area of the Elliott State Forest is 93,231.18 acres.

Inventory acres — As recorded in the OSCUR inventory, the Elliott’s area is 93,564 acres. The dot tally method was used to estimate the area of individual cover types. The sum of the cover type areas differs from legal acreage because of cumulative errors in the estimates. OSCUR is the state forest inventory system.

GIS acres — The computer-based GIS (Geographic Information System) calculates the Elliott’s area as 92,854 acres. The difference between GIS acres and legal and inventory acres can be attributed to the GIS base map, which is registered in terms of geo-referenced coordinates (UTM, or Universal Transverse Mercator).

The Department of Forestry is converting to a GIS inventory. Because of this transition, the Elliott State Forest Management Plan shows areas in terms of inventory acres, while many estimates in the Environmental Assessment and the Habitat Conservation Plan are based on GIS acres. As a result, there may be differences in acreage figures between documents.

Nonproduction Lands

Nonproduction lands are classified into three main categories: Special Use, Conservancy, and Noncommercial. In turn, each of these categories has several subclassifications. Timber production is not the primary use of these lands. Timber harvest may occur only under special circumstances. On the Elliott, 5.3% of the forest is classified as nonproduction lands.

- **Special use lands** — Timber harvest will occur in these areas only when it does not interfere with the designated special use of these lands. The various types of special use lands on the Elliott are described briefly below.

Recreation — areas best suited for a high level of recreational use.

Watershed — areas directly providing or best suited for providing a water supply to a home or a community.

Service — areas used for demonstration purposes, research, study, or similar purposes.

Farm — farm or ranch lands with associated buildings.

Conservancy lands — No timber harvest will occur on the following lands except in emergency salvage conditions.

Scenic conservancy lands — In these areas, scenic values pre-empt all timber production. Timber harvesting may be allowed in certain cases, such as salvaging windthrown or diseased trees, as long as scenic values are protected. Scenic conservancy lands are classified as park buffer, highway corridor, river corridor-lakeshore, and scenic attraction. The Elliott has park buffer lands and river corridor-lakeshore lands.

The park buffer areas are by the West Fork Millicoma River. The river corridor-lakeshore lands will be maintained as natural, untouched areas due to their scenic value. Public safety is also a consideration, as these areas are steep, rocky bluffs.

Protective conservancy lands — In these areas, resource protection pre-empt all timber production. The land would be irreversibly damaged by harvesting timber with current technology. These areas are classified as damageable lands, special game habitat, and special fish habitat. Currently, the Elliott has lands classified as damageable. These areas are almost exclusively associated with the steep, rocky slopes on either side of major rivers or streams, including the Umpqua River, Mill Creek, and the West Fork Millicoma River. The protected corridors vary between 1,000 and 4,000 feet in width. No timber harvest will occur in these corridors other than emergency salvage.

- **Noncommercial lands** — Areas classified as noncommercial lands are unproductive because they are rocky, swampy, covered by water, or for other reasons have no commercial timber production value. Currently, the Elliott has a few parcels of rocky or swampy lands scattered through the forest. Most parcels are less than five acres, though a few are as large as 20 acres. No timber harvest is anticipated from these lands.

Tables and Graphics

The tables, graphics, and map on the next several pages summarize the land classification information. The tables also display detailed information on how many acres the Elliott has in each land use classification, and on how the land use classifications are distributed across both ownerships.

Board of Forestry Lands

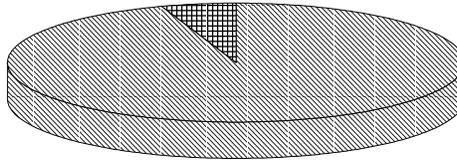


Common School Forest Lands

Figure I-1. Land Ownership on Elliott State Forest

Elliott State Forest has 93,564 acres, measured in inventory acres. The State Land Board owns 84,734 acres of the Elliott, or about 90.5% of the forest. These lands are the Common School Forest Lands. The Board of Forestry owns the remaining 8,830 acres, or about 9.5% of the forest. All lands of both ownerships are managed by the Oregon Department of Forestry.

Nonproduction Lands



Production Lands

Figure I-2. Land Use Classifications on the Elliott

State forest lands are classified into two main categories: production and nonproduction. These are further subdivided into additional classifications. The map following page I-14 shows how production and nonproduction lands are distributed across the Elliott. The tables on the next few pages display detailed information about all the land use classifications on the Elliott. The land use classifications are distributed across the forest, across both ownerships. The Department of Forestry manages the land of both ownerships for the most appropriate uses.

Table I-6. Land Use Classifications on the Elliott

Land Use	Board of Forestry Lands: Acres	Common School Forest Lands: Acres	Total Acres on the Elliott	Percent
Production Lands	8,319	80,327	88,646	94.7%
Regular Production	8,186	76,962	85,148	91.0%
Scenic Production	133	3,365	3,498	3.7%
Nonproduction Lands	511	4,407	4,918	5.3%
Special Use Lands	103	997	1,100	1.2%
Conservancy Lands	293	3,008	3,301	3.5%
Noncommercial Lands	115	402	517	0.6%
Total Acres	8,830	84,734	93,564	100%

As shown in the table above, Elliott State Forest lands are classified into two main categories: Production and Nonproduction.

Production lands are those on which timber production is the primary use. Scenic production lands are suited for timber production, but need harvest modifications to protect or enhance scenic values. The scenic production lands on the Elliott are primarily associated with the forest slopes that are visible from Highway 38, Loon Lake Road, West Fork Millicoma River, and Loon Lake itself.

Timber production is **not** the primary use on nonproduction lands. On these lands, timber harvest may occur only under special circumstances. The tables on the next two pages display detailed information about the special use, conservancy, and noncommercial lands.

Table I-7. Special Use Lands on the Elliott

Land Use	Board of Forestry Lands: Acres	Common School Forest Lands: Acres	Total Acres
Recreation Use	28	679	707
Forest Park	28	678	706
Heritage Site		1	1
Watershed Use	3	16	19
Home Water Supply	3		3
Community Water Supply		16	16
Service Use	70	180	250
Commerce-Industry		7	7
Demonstration	56	72	128
Government	1	24	25
Organization	13		13
Research Study		77	77
Farm Use	2	122	124
Pasture	2	122	124

Special use lands comprise 1.2% of the Elliott. Timber harvest will occur in these areas only when it does not interfere with the designated special use of these lands.

Table I-8. Conservancy Lands on the Elliott			
Land Use	Board of Forestry Lands: Acres	Common School Forest Lands: Acres	Total Acres
Scenic Conservancy	111	1,288	1,399
Park Buffer	20	6	26
River corridor-Lakeshore	91	1,282	1,373
Protective Conservancy	182	1,720	1,902
Damageable Lands	182	1,720	1,902

Conservancy lands comprise 3.5% of the Elliott. No timber harvest will occur on these lands except in emergency salvage conditions.

Table I-9. Noncommercial Lands on the Elliott			
Land Use	Board of Forestry Lands: Acres	Common School Forest Lands: Acres	Total Acres
Noncommercial Lands	115	402	517
Rock	115	386	501
Swampy-Water		16	16

Noncommercial lands comprise 0.6% of the Elliott. These lands are not suited for commercial timber production because they are rocky, swampy, covered by water, or for other reasons have no commercial timber production value.

The Timber Program

Policies for managing state forests are based upon the Oregon Constitution and statutory direction. The *Long Range Timber Management Plan [for] Southern Oregon Region State Forests* (Oregon Department of Forestry 1987) includes the following policy statements. These policies are the foundation for Elliott State Forest's current timber management program.

Common School Forest Lands “are managed to provide the greatest benefit for the people of Oregon. The primary objective is the generation of the greatest amount of revenue for addition to the Common School Fund as is consistent with sound techniques of land and timber management. Consideration is given to the need to protect soils, streams, wildlife habitat, recreational opportunities, and other environmental values.”

Board of Forestry Lands are managed under the authority of the State Forester, who, “under the authority of the State Board of Forestry, is directed to manage the lands to secure their greatest permanent value to the State. The basic goal is to provide a sustained contribution to the people of Oregon by managing the growth and harvest of the forests in a cost-effective and environmentally sound manner. Timber production is tempered by the need to protect soils, streams, wildlife habitat, recreational opportunities, and other environmental values.”

The timber program has carried out this policy by generating revenue to benefit the Common School Fund, county governments, and local taxing districts. Timber production has been the main revenue-generating activity on the Elliott.

The timber program generates revenue for the State of Oregon, and has returned \$230 million to the Common School Fund over the last 20 years. The Department of Forestry manages Common School Forest Lands under a contract with the State Land Board. Timber sale revenues are placed directly into the Common School Fund, and management expenses are in turn paid from the Common School Forest Revolving Fund. On the Board of Forestry Lands, 36¼% of timber sale revenues are retained for Department management costs. The Department of Forestry's management services include timber sale preparation and administration, forest inventory, intensive forest management, and associated overhead costs.

The timber program is guided by the principle of sustained yield, which ensures that the Common School Fund, counties, and local taxing districts will benefit from a perpetual source of revenue from a managed forest.

Status of the Timber Resource

All resource information presented here is based on the forest inventory as of April 1993. Data from a 1992 reinventory of 20,000 acres is included.

Site Index Information

Site class is a measure of an area's relative capacity for producing timber or other vegetation. It is measured through the site index. The site index is expressed as the height of the tallest trees in a stand at an index age. (King 1966) In this document, an age of 50 years is used. The Elliott's average 50 year site index for Douglas-fir is 115 feet, or a low site class II, based on the Weyerhaeuser Soil Map used in the 1987 long range plan.

Background Information

The 5 site classes are defined below.

Site class I — 135 feet and up

Site class II — 115-134 feet

Site class III — 95-114 feet

Site class IV — 75-94 feet

Site class V — Below 75 feet

Timber Resource Characteristics

Forests are naturally divided into stands — areas of a few to several hundred acres occupied by trees or other vegetation similar in age, stocking, size, and species. Each of these stands is identified, mapped, and described in the OSCUR inventory. The inventory recognizes three main types of stands.

- **Conifer stands** — These stands occupy 96.0% of the Elliott State Forest's production land. The Department of Forestry classifies as conifer stands those in which conifer species comprise 30% or more of the stand. While conifers are the principal economic species in conifer stands, many of these stands include substantial amounts of other vegetation types that contribute to maintaining a diverse forest ecosystem. These types are either intermixed with the conifers or are in small clumps impractical to separately map and inventory. This other vegetation includes hardwoods, brush, grass, and fern.
- **Non-conifer stands** — These stands are found on a minority of Elliott State Forest production lands (2,121 acres, or 2.4%). The Department of Forestry classifies as hardwood stands those in which hardwood species comprise more than 70% of the stand.
- **Unclassified stands** — These are stands that are currently under contract for harvesting, or have been harvested and will be planted soon. There are 1,456 acres (1.6%) of these stands on the Elliott, based on the April 1993 data. The majority of these acres are under contract to be planted. The forest has no planting backlog.

The following two tables provide more detailed information about the conifer and non-conifer stands on the Elliott's production lands. Also refer to the first map following page IV-21, showing current conifer age classes on the Elliott.

Table I-10. Conifer Acres by Age Class
(Production lands only)

Age Class	Acres ¹	Percent
0 to 35 years	36,569	43.0
36 to 75 years	4,420	5.2
76 to 115 years	35,051	41.2
115 to 155 years	8,721	10.2
155+ years	307	0.4
Total Acres	85,068	100.0

1. Acreages in this table are from the OSCUR inventory.

Table I-11. Non-Conifer Acres: Stand Information
(Production lands only)

Size Class or Vegetation Type	Acres ¹
0-4" Diameter Hardwoods ²	39
5-10" Diameter Hardwoods	979
11+" Hardwoods	922
Brush	70
Grass and Fern	111
Total Acres	2,121

1. Acreages in this table are from the OSCUR inventory.
2. Diameter is given in diameter breast height (DBH), which is defined as the diameter of a tree, measured 4.5 feet above the ground on the uphill side of the tree.

For detailed information about the silvicultural tools used in managing the forest, see Appendix J of the Elliott State Forest Management Plan.

Regulatory Framework for Habitat Conservation Plan

Federal Listing of Threatened Species

The northern spotted owl was listed as a federal threatened species on July 23, 1990. The marbled murrelet was listed as a federal threatened species in Washington, Oregon, and California on October 1, 1992. The Oregon Department of Forestry must meet the requirements of the federal Endangered Species Act (ESA). ODF has conducted surveys to identify owl activity centers and marbled murrelet-occupied sites. See the “Key Terms” box on page I-3 for definitions of terms used in the next few pages.

Restrictions on Take

Section 9 of the federal ESA prohibits taking of a threatened or endangered species. The prohibition applies to all persons and includes state and private land.

Section 10(a) of the federal ESA includes provisions for the issuance of special permits for take that is incidental to but not the purpose of otherwise lawful activities. These permits are called incidental take permits. ODF is applying for an incidental take permit for the Elliott State Forest, for spotted owls and marbled murrelets. The Department of Forestry does not plan to harm, harass, hunt, or otherwise injure spotted owls and marbled murrelets. However, the Department proposes to remove some habitat for both species in the course of management activities.

Designation of Critical Habitat for the Northern Spotted Owl

To the maximum extent that it is prudent and determinable, the U.S. Fish and Wildlife Service (USFWS) is required to identify critical habitat when a species is listed as threatened or endangered. This habitat is considered essential for the conservation of that species. The USFWS first proposed the areas to be designated for critical habitat for the northern spotted owl in May 1991. The agency announced a revised proposal on August 5, 1991, which recommended that 8.2 million acres of land be designated as critical habitat. The revised proposal included 3.8 million acres in 77 locations in Oregon.

The final rule on critical habitat was published in the Federal Register on January 15, 1992 (Volume 57, Number 10, pp. 1796-1838). The final rule designates 6,887,000 acres as critical habitat, including 3,257,000 acres in 76 locations in Oregon.

None of the lands covered by this plan are designated as critical habitat.

Habitat Conservation Plan Requirements and Guidelines

A Section 10(a) permit for incidental take can be issued for an area in which several projects will occur, for activities connected to a single project, or for takings as small as a single specimen. To qualify for the permit, the applicant must prepare a conservation plan which, among other things, must specify the level and location of take, and show how the impacts on the species will be minimized and mitigated to the maximum extent practicable. Preparation of a conservation plan is a requirement for all Section 10(a) permit applications, regardless of the magnitude of the proposed take or the scale of the project. The conservation plan is generally referred to as a habitat conservation plan (HCP).

In cases that involve federal land or federal action, incidental take may also be authorized through the consultation process stipulated in Section 7 of the ESA.

Incidental Take Permit Application and Approval Process

An application for a Section 10(a) permit must be submitted on an official form (Form 3-200) and be accompanied by the following attachments:

1. A complete description of the activity for which the permit is being sought.
2. The common and scientific names of the species to be covered by the permit.
3. A Habitat Conservation Plan that specifies:
 - a. The impact that will likely result from the proposed taking of the species.
 - b. Steps the applicant will take to monitor, minimize, and mitigate such impacts.
 - c. The level and source of funding available to implement such steps.
 - d. Procedures that will be used to deal with unforeseen circumstances.
 - e. The names of the responsible party or parties.
 - f. Alternatives to the taking and the reasons why they were not pursued.
- g. Other measures required by USFWS as necessary or appropriate.
4. A signed Implementation Agreement to legally bind the State and USFWS to their respective obligations under the HCP.

The habitat conservation plan is accompanied by an environmental assessment (EA) to inform the public about the environmental analysis done in developing the HCP. Through the EA, USFWS will determine if issuance of the incidental take permit would result in significant effects to the human environment. If significant effects are not found, a Finding of No Significant Impact (FONSI) will be prepared. If significant impacts are found, an Environmental Impact Statement must be prepared.

Planning Guidelines

The USFWS requirements for a habitat conservation plan are summarized below.

Mandatory Elements of a Habitat Conservation Plan

A. Impacts likely to result from the proposed taking of one or more federally listed wildlife species.

Conservation Plan Area — The plan boundary should encompass all areas likely to be affected during the length of the permit by activities that may result in the incidental take of a listed wildlife species.

Biological Data — The applicant must collate and synthesize all biological information regarding the distribution, occurrence, and ecology of federally listed species occurring within the planning area. The USFWS will indicate whether the biological data are adequate to proceed with other elements of this process.

The scope of the data must include all federally listed species, both plants and animals; and also other species of concern (for example, proposed, candidate, or state-listed species) within the planning area.

Proposed Activities — The applicant must detail the proposed activities that may result in incidental take. The description of proposed activities should address effects to proposed and candidate species, in addition to impacts to listed species. Moreover, the applicant should not limit such analysis to currently proposed developments, but include all future actions reasonably certain to occur within the plan area that the applicant seeks to authorize. The description of authorized activities must be clear to eliminate any confusion regarding a permitted versus a non-permitted activity.

B. Measures the applicant will undertake to monitor, minimize, and mitigate for such impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances.

Mitigation measures — Mitigation measures in the HCP can take many forms. Some of these forms are listed below and on the next page.

1. Preservation (via acquisition or conservation easement) of existing habitat.
2. Enhancement or restoration of degraded or former habitat.
3. Creation of new habitat.
4. Establishment of buffer areas around existing habitat.
5. Enactment of local ordinances or alteration of local zoning to reduce or eliminate some future impacts.
6. Habitat management plans.

7. Restrictions on vehicular access or on pesticides and herbicides.
8. Education of the local public.

Funding — The guidelines indicate that the applicant must specify the funding that will be made available for the proposed mitigation measures and the funding must be sufficient over the life of the permit.

Unforeseen circumstances — Because Congress recognized that circumstances and information may change over time and that the original plan might need to be revised, the plan must detail the procedures developed to deal with unforeseen events. As a result, the conservation plan should provide for an amendment procedure and any other necessary measures or assurances to deal with such circumstances.

- C. **Alternatives that the applicant analyzed that would not result in take; and the reasons why the applicant did not adopt such alternatives.**
- D. **Additional measures that the Director of the Service may require as necessary or appropriate.**

Additional measures — At a minimum, USFWS requires that the plan must demonstrate how monitoring and mitigation will be implemented and what steps will be taken to ensure that incidental take does not exceed what the plan specifies.

Issuance Criteria for Incidental Take Permit

1. The taking will be incidental.
2. The permit applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.
3. The applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided.
4. The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild.
5. The applicant will ensure that other measures that the USFWS Director may require as being necessary or appropriate will be provided.
6. The Director is assured that the conservation plan will be implemented.

Other Legal Requirements

In preparing this habitat conservation plan, the state has taken into account other legal requirements that directly apply. These include the State of Oregon Endangered Species Act and the Oregon Forest Practices Act.

State Endangered Species Act

The northern spotted owl was listed by the Oregon Department of Fish and Wildlife (ODFW) as a threatened species and the listing went into effect after passage of the State ESA in 1987. The Oregon Fish and Wildlife Commission voted in May 1995 to list the marbled murrelet as threatened under the State ESA.

The Oregon Fish and Wildlife Commission is required by the state ESA to adopt a conservation and protection program for the northern spotted owl. Until a state conservation plan for the owl is adopted, the Department of Forestry's obligation is to consult with the Oregon Department of Fish and Wildlife (ODFW) in furtherance of programs to conserve or protect threatened or endangered species under state statutes.

Oregon Forest Practices Act

Activities on lands managed by the Department of Forestry are subject to the Forest Practices Act (FPA), Chapter 527 of the Oregon Revised Statutes, and the Oregon Administrative Rules pursuant to these statutes.

The FPA declares it public policy to encourage economically efficient forest practices that assure the continuous growing and harvesting of forest tree species, consistent with sound management of soil, air, water, fish, and wildlife resources, as well as scenic resources within visually sensitive corridors. The Board of Forestry is granted the exclusive authority to develop and enforce rules protecting forest resources and to coordinate with other agencies concerned with the forest environment.

The FPA has developed in an evolutionary manner since the original act was passed in 1971. The original act established minimum standards for reforestation, road construction and maintenance, timber harvesting, application of chemicals, and disposal of slash. Subsequently, administrative rules were written to define the "waters of the state" and to protect streams and riparian areas. Rules were adopted to prevent soil damage that could result from logging and to prevent mass soil movement.

The FPA was strengthened in 1987 to introduce the concept of sensitive resource sites, along with the requirement that written plans be approved prior to operating near those sites. Provisions were added to allow interested citizens to review and comment on notifications of operations and written plans.

1991 amendments to the Forest Practices Act added new standards for reforestation, wildlife habitat, and scenic considerations. The new requirements included reforestation standards for trees per acre and timeframes, limits on the size and proximity of clearcuts, visual standards for logging in visually sensitive highway corridors, and specifications for wildlife trees and downed woody debris retained after logging. The Board of Forestry was directed to reclassify and develop appropriate protection levels for the waters of the state.

On September 1, 1994, the Board of Forestry adopted a new stream classification system. The new classification system contains nine classes compared to two under the old rules. The new system identifies seven geographic regions; distinguishes between streams with fish or domestic use; and distinguishes whether the stream is large, medium, or small, based on water volume. Coos District is currently working to reclassify streams based on the new system.

Northwest Forest Plan

On April 2, 1993, President Clinton held a Forest Conference in Portland, Oregon. After the conference, he directed the federal agencies involved to develop a plan for managing federal forests in the Pacific Northwest and northern California. The agencies were directed to develop a balanced and comprehensive plan that addressed the following issues (summarized here from a lengthy list of objectives), using an ecosystem approach to forest management.

- Preserve the old growth forests and the ecological values associated with them, including air and water quality, habitat conservation, sustainability, threatened and endangered species, biodiversity, and long-term productivity.
- Maintain sustainable levels of renewable natural resources, including timber and other forest products; maintain rural economies and communities; and provide for economic diversification and new economic opportunities in the region.

The plan is described in the Final Supplemental Environmental Impact Statement, known as the Final SEIS (USDA Forest Service et al. 1994a). The Record of Decision (ROD) selected Alternative 9 of the Final SEIS, except for minor modifications as noted in the ROD (USDA Forest Service et al. 1994b). The plan uses a system of late successional forest reserves, riparian reserves, adaptive management areas, and matrix lands.

- Late successional reserves would protect habitat for species dependent on these forests, including spotted owls and marbled murrelets. Some silvicultural and salvage activities would be allowed in parts of these reserves, to assist in the development and maintenance of old growth characteristics.
- Riparian reserves would protect habitat for at-risk fish species, other aquatic and riparian species, and all species that use riparian areas. Riparian guidelines are provided in the ROD. Riparian protection is greatest in key watersheds.
- Adaptive management areas (ten areas) would be used for the development and testing of technical and social approaches to ecosystem management. Resource managers and local

communities would rely on their experience and creativity to develop innovative prescriptive approaches.

- Matrix lands would be used for normal forest management activities, including timber harvest. They would follow existing forest and area plans, with the addition of some guidelines to provide connectivity to old growth forests and to assist in the development of diverse landscapes.