



Common School Forest Lands Annual Report

FISCAL YEAR 2011



**Prepared for the
Oregon Department State Lands
by the
Oregon Department of Forestry**

DATE: October 11, 2011

TO: Governor John A. Kitzhaber, M.D.
Secretary of State Kate Brown
State Treasurer Ted Wheeler

FROM: Doug Decker, Oregon State Forester

SUBJECT: Fiscal Year 2011 Report on the Status of Common School Forest Land Management

The Oregon Department of Forestry (ODF) manages the Common School Forest Lands (CSFL) under a 2005 agreement with the State Land Board (SLB) and the Department of State Lands (DSL). As trustee for the CSFL, the primary obligation of the SLB is to manage lands with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management. The Department of State Lands Asset Management Plan calls for these lands to be managed to provide a sustained, even flow of timber harvest.

ODF actively manages these lands for sustainable timber harvest and resource protection by implementing goal-driven strategies contained in broad forest management plans approved by both the Board of Forestry (BOF) and the SLB. Revenues generated from CSFL are dedicated to the state's Common School Fund (CSF).

The agreement between ODF, DSL and the SLB requires ODF to report annually in writing the status of CSFL management. The status report includes information about timber management (volume and value of harvested, sold and planned timber sales), actual fiscal year operating costs, revenue transferred to the CSF, reforestation and intensive management accomplishments and costs, research and monitoring results, contract modifications, and any other information affecting the management of CSFL.

During Fiscal Year (FY) 2011 the national economy continued to struggle and timber prices remained low. This underlying national situation significantly affects the forest management activities on CSFL, including revenues generated. In FY 2011, \$8.7 million was transferred to the CSF, below the \$10.9 million average of the last five years.

Highlights from FY 2011 include the following:

- Market conditions have continued to somewhat improve during this past year, and average stumpage prices for timber sales offered in FY 2011 reflect that incremental improvement. On CSFL, average stumpage prices for new sales increased from \$268 per thousand board feet (mbf) in FY 2010 to \$316 per mbf in FY 2011, representing an 18 percent increase.
- After a decade of planning and effort, a new Elliott State Forest Management Plan (FMP) has been prepared and is ready for adoption. The new plan meets the mandates of the CSFL and provides a suite of economic, social, and environmental benefits.

- A year of successful operations on the CSFL has led to revenue for the CSF, investments in stream restoration and forest management, and jobs throughout Oregon.
- Research and monitoring has tested assumptions about the effectiveness of stream buffers to maintain stream temperatures. Results show that on stream classifications tested (small and medium fish bearing streams) stream buffers are effective at preventing harvest activities from changing stream temperature.
- Ecotrust completed a study of forest carbon on the Elliott State Forest. The study quantified the maximum carbon storage potential, as well as carbon storage potential under a variety of forest management alternatives. Under the proposed FMP, carbon storage will continue to accrue over time.

Fiscal Year 2011 by the numbers:

1. 32.1 MMBF of timber volume was removed from CSFL, of which 27.9 MMBF came from the Elliott State Forest. This is a 7.3 MMBF (29 percent) increase from FY 2010.
2. \$8.7 million was transferred to the CSF. Of this \$8.7 million, the Elliott State Forest produced \$8.1 million, or 93 percent, of the total.
3. Net Operating Income (NOI) for FY 2011, calculated as total revenue transfers to the CSF less ODF management costs, was \$4.5 million. This is a decrease of \$1.2 million from FY 2010 (21 percent). NOI has ranged from a low of \$4.8 million in 2006 to a high of over \$20 million in 2000, and is influenced by the same factors that affect volume and value, as well as management costs. Management costs in FY 2011 totaled \$4.1 million. This is an increase in costs of \$0.3 million from FY 2010.
4. Fifteen timber sales containing CSFL were sold in FY 2011, for a total estimated volume of 42.1 MMBF and an estimated value of \$13.5 million. A few FY 2011 sales remain and these sales will be offered in FY 2012.
5. Other specific management activities on the Elliott State Forest for FY 2011 included:
 - *Completion of the 2010 Marbled Murrelet Protocol Surveys.* In the survey season, 569 surveys were completed at 381 stations, representing 60 survey sites on the Elliott State Forest. Five new Marbled Murrelet Management Areas were designated totaling 378 acres. Three existing Marbled Murrelet Management Areas were expanded by 68 acres.
 - *Northern Spotted Owl Density Surveys.* In 2010, northern spotted owl density surveys resumed on the Elliott State Forest. Survey results include eight pair sites, two resident single sites with pair status unknown, and nine resident single sites, for a total of 29 owls and 19 activity centers. These estimates may be overestimates since some responses that were considered a new site may actually be from birds whose sites had shifted, possibly due to effects from barred owls. Observations of barred owls increased significantly since surveys were last conducted in 2003. The last density surveys on the Elliott State Forest were conducted in 2003 where 25 northern spotted owls and 13 activity centers were observed. Density estimates will again be conducted on the Elliott State Forest in 2011.
 - *Intensive management practices.* Management practices were applied to 3,013 acres of CSFL during FY 2011. These practices included tree planting, tree protection, vegetation control, noxious weed management, and pre-commercial thinning. The total cost for these intensive management practices in FY 2011 was \$252,937.

- *The American Recovery and Reinvestment Act (ARRA)*. This act provided approximately \$324,000 to forest management activities on CSFL, contributing to pre-commercial thinning, invasive species control, and release activities.

Following is the Annual Report to the Department of State Lands and State Land Board on the Status of Common School Forest Lands Management – July 1, 2010 through June 30, 2011.

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Introduction

The Oregon Department of Forestry (ODF) manages the Common School Forest Lands (CSFL) under the 2005 CSFL Management Agreement with the State Land Board (SLB) and the Department of State Lands (DSL). CSFL are trust lands that were granted by the United States to the State of Oregon upon admission to the union to finance public schools.

The Oregon Constitution, Article VIII, Section 5 (2); outlines the State Land Board's powers and duties for managing CSFL as, "The board shall manage lands under its jurisdiction with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management." Revenues from these lands are dedicated to the State's Common School Fund (CSF).

DSL's Asset Management Plan (adopted October 2006) provides the strategic direction for CSFL. The primary strategy for forest land in the plan is to "Manage forest lands to increase timber harvest levels to the extent possible, while maintaining a sustainable, even-flow harvest of timber, subject to economic, environmental and regulatory considerations." ODF staff coordinates with DSL on an ongoing basis to assure alignment with the Asset Management Plan.

The CSFL Management Agreement (June 2005) outlines the primary objectives for management as:

1. Maximizing the return to the CSF when forest lands are sold or exchanged, timber is harvested and sold, or from any sale of product or services from CSFL;
2. Managing the CSFL primarily to produce a sustainable, even-flow harvest of timber subject to economic, environmental, and regulatory considerations in accordance with specific forest management plans;
3. Maintaining forest management costs at a level comparable to similar lands managed by public and private entities; and



4. Investing in improvements to CSFL (e.g. timber stand inventory and environmental inventory, long-range planning, road construction to improve access, pruning, fertilizing, pre-commercial thinning) when it is justified through investment and return analysis.

ODF manages a total of 119,774 acres of CSFL (Appendix A) under the agreement with the SLB and the DSL. These lands are located in several state forests throughout western Oregon and in Klamath County, with the largest block being on the Elliott State Forest in Coos and Douglas counties. This report highlights key management activities and issues during Fiscal Year (FY) 2011. Other information in this report discusses volume and estimated value of active and planned timber sales, reforestation and intensive management accomplishments and costs, estimated and actual fiscal year operating costs, sold sale revenues, contract modifications, timber sale planning, and other information affecting the management of CSFL.





Section 1. Common School Forest Lands

Financial and Asset Management

Overview

This report is intended to focus on FY 2011 (July 1, 2010 through June 30, 2011). However, in the business of forest management, particularly with the Elliott State Forest, it is important to look at the trend in revenues and costs over the past few biennia (i.e., sales approved in one year's operating plan may be harvested over one to three subsequent years). Revenue transferred to the CSF from management of CSFL has varied over the past 10 years from \$8.6 to \$19.1 million on an annual basis.

The primary factors influencing revenue and revenue fluctuations include: housing starts, lumber prices, harvest timing, individual sale volumes and value, changing ratios between harvests on CSFL and Board of Forestry lands (BOFL), and uncertainty from marbled murrelet detections.

State Land Board Performance Measures

Performance Measures and targets provide a means of measuring progress towards meeting established goals. DSL established performance measures and targets in the Asset Management Plan approved by the SLB in 2006. These Asset Management Plan measures and targets have been established to evaluate management actions, inform decision-making on land reclassifications, and guide decisions on investment, retention and disposal of lands. The SLB has established four separate measures it will use to assess



performance of the CSFL.

Net Operating Income (NOI)

NOI for CSFL for FY 2011 was \$4.5 million. This is a decrease from \$5.8 million in FY 2010 and \$8.7 million in FY 2009.

Return on Asset Value (ROAV)

ODF has not calculated an ROAV for CSFL.

Annual Revenue

Annual revenue is reported in Table 1 (on Page 6) and many sections of this report address the underlying factors that influence this indicator of financial performance.

Land Value Appreciation (LVA)

ODF has not calculated LVA for FY 2011.

Biennial Context

For the past four biennia (2003-05 to 2009-11), the average revenue transferred to DSL has been approximately \$24.6 million per biennium. During the same four biennia, the average costs have been approximately \$9.6 million per biennium. This results in an NOI average of about \$7.7 million per year for the last eight years. During the 2009-11 biennium, the total revenue transfer was \$18.3 million. The total costs for the 2009-11 biennium were \$8 million, resulting in an NOI in FY 2010 of 5.8 million in FY 2010 and \$4.5 million in FY 2011.

The July 2011 revenue projection reflects a slight increase for the 2011-2013 biennium to \$19 million (over 2009-11 actual biennial revenues), then a rebound to \$34.6 million-plus in the 2013-2015 biennium and beyond. It is important to point out that these forecasts assume that the CSFL share of Elliott State Forest harvest levels will stabilize around 35 million board feet (MMBF) in FY 2014 and beyond.

Fiscal Year 2011 Revenue

During FY 2011, \$8,704,304 in revenue was transferred to DSL (Table 1). This is lower than both the five-year average of \$10.9 million and the 10-year average of \$12.8 million. Details of the specific sales that produced the revenue for FY 2011 and market conditions follow in the report.



Fiscal Year 2011 Investment Costs

Total charges for managing the CSFL totaled \$4.1 million during FY 2011 (Table 1). During FY 2011, \$3.7 million of the \$4.1 million in costs were related directly to operational budget units that manage CSFL. The operating budget units include State Forests Division personnel in Salem, three regional areas, and nine districts. The responsibilities of these units include timber sale contract development and compliance, reforestation and intensive management activities, ESA compliance, research and monitoring, forest planning, and overall program management.

Other charges to the CSF referred to as “Transfers Out,” were \$467,796 in FY 2011 (Table 2). This is approximately 11 percent of the overall costs. The “transfers out” charges include: a portion of overall agency administration, capital improvement projects, debt service on capital investments through the use of certificate of participations (COPs), and seed orchard management.

It is ODF’s goal to ensure that allocation of agency administrative costs accurately reflects the work performed by administrative and managerial staff, and that each program pays their appropriate share of administrative costs. The administrative funds support the following services:

- Human Resources (Personnel, Labor Relations, Safety, and Training);
- Financial Services (accounting and reporting services);
- Internal Auditing, Quality Control, and Risk Management;
- Information Technology support and infrastructure to ODF staff and field offices;
- Oversight and management of Facilities, Property Control, and Procurement activities (contracting and physical assets);
- Payroll administration;
- Biennial Budget development and implementation;
- Agency Affairs (public information, education, and legislative coordination);
- Resource analysis and technical studies; and,
- Executive-level policy and administrative oversight (State Land Board, Board of Forestry (BOF), Executive Team and Administrative Services Program Directors).

The appropriate administrative cost distribution is calculated from work studies performed each biennium by ODF. The work studies in the different administrative areas represent the percentage of time a



**Table 1. Revenue and Costs from Common School Forest Lands
Fiscal Years 2002 through 2011**

Fiscal Year	Actual Revenue Transfer to DSL						Fund 52 Expenditures			Transfers Out	Fiscal Year 2009 Adjustments	Total Costs
	Timber Sales and Forest Product Sales Revenue Transfer ¹	Personal Services	Services and Supplies	Capital Outlay	Other Payments	Total Expenditures ²	Administrative Prorate, Capital Improvement, COPs, Seed Orchard, etc	Administrative Prorates, Land Management Prorates, Secretary of State Audit Results ³	Fund 52 Expenditures and Revenue Transfers			
Elliott State Forest 2011	\$8,065,368	\$1,329,223	\$847,132	\$0	\$0	\$2,176,355	\$336,813	n/a	\$2,513,168			
Other Sources 2011	\$638,936	\$807,963	\$701,875	\$2,955	\$4,672	\$1,517,466	\$130,983	n/a	\$1,648,449			
2011 Totals	\$8,704,304	\$2,137,186	\$1,549,007	\$2,955	\$4,672	\$3,693,822 ⁴	\$467,796	n/a	\$4,161,618			
Elliott State Forest 2010	\$7,664,940	\$1,351,012	\$636,714	\$4,407	\$0	\$1,992,133	\$268,458	n/a	\$2,260,591			
Other Sources 2010	\$1,981,122	\$856,701	\$639,432	\$0	\$0	\$1,496,133	\$99,845	n/a	\$1,595,978			
2010 Totals	\$9,646,062	\$2,207,713	\$1,276,146	\$4,407	\$0	\$3,488,266	\$386,303	n/a	\$3,874,569			
Elliott State Forest 2009	\$9,131,806	\$1,298,401	\$833,825	\$19,081	\$0	\$2,151,307	\$799,428	n/a	\$2,950,735			
Other Sources 2009	\$4,437,281	\$1,123,759	\$840,274	\$0	\$0	\$1,964,033	\$310,888	n/a	\$2,274,921			
2009 Totals	\$13,569,087	\$2,422,160	\$1,674,099	\$19,081	\$0	\$4,115,340	\$1,110,316	(\$333,785)	\$4,891,871			
2008	\$9,841,438	\$2,335,231	\$1,692,094	\$14,327	\$0	\$4,041,652	\$804,938	(\$312,953)	\$4,533,637			
2007	\$12,590,076	\$2,473,445	\$2,007,265	(\$1,280)	(\$54)	\$4,479,376	\$947,815	(\$453,790)	\$4,973,401			
2006	\$9,656,593	\$2,414,501	\$1,861,269	\$13,433	\$0	\$4,289,203	\$936,936	(\$440,410)	\$4,785,730			
2005	\$19,092,180	\$2,344,566	\$1,687,799	\$16,833	\$34,193	\$4,083,391	\$1,037,909	(\$123,353)	\$4,997,947			
2004	\$15,360,073	2,143,416	\$1,506,424	\$138,230	\$30,802	\$3,818,872	\$881,152	(\$125,205)	\$4,574,819			
2003	\$8,550,000	2,142,745	\$1,567,088	\$2,471	\$50,167	\$3,762,471	\$660,865	(\$112,523)	\$4,310,813			
2002	\$13,671,493	\$1,977,222	\$1,386,074	\$23,642	\$68,574	\$3,455,512	\$806,418	(\$104,400)	\$4,157,530			

¹Includes revenue from negotiated sales, rights-of-way, permits, etc., in addition to timber sales. Revenue for the Elliott State Forest are dollars generated in Coos and Douglas counties and transferred to DSL.

²Elliott State Forest expenditures reflect Coos District expenditures.

³Credits for land management cost and fund balance reconciliation prorate over fiscal year based on expenditures from FY 1997 through FY 2006. 1997—2001 total expenditures \$21,282,472 distribution of adjustments equalled (\$426,745).

⁴Total costs do not include stimulus dollars (American Recovery and Reinvestment Act) spent on CSFL (\$324,000).



specific service area (e.g., Human Resources) performs work for the benefit of an operating program (e.g., management of CSFL).

J.E. Schroeder Seed Orchard costs for FY 2011 were \$20,817. This money was used to produce genetically improved seed (superior growth, wood quality, and disease tolerance characteristics as identified through traditional breeding and selection methods) appropriate for state forestlands.

The COP interest and principal is used to fund capital construction debt service for facility development and improvement to the Salem compound.

The ODF Fire Protection Division billed DSL \$295,280 for fire patrol assessment. This cost is not included in Table 1 as a land management expenditure.

In 2009, ODF and DSL resolved the audit findings made by the Secretary of State Auditors concerning ODF billings. The *Common School Forest Lands Annual Report—Fiscal Year 2009* showed the results of that resolution in Table 2. This FY 2011 annual report adjusts the historical record of costs to the CSF for FY 2002 through FY 2009 and are shown in Table 1 in a new column entitled “Fiscal Year 2009 Adjustments.”

**Table 2. Details of Revenue Transfers
Fiscal Year 2011**

Revenue Transfers	Amount
Administrative Prorate Charge	\$378,904
COP Interest (Reimbursement)	\$21,916
COP Principle (Reimbursement)	\$44,729
J.E. Schroeder Seed Orchard Transfer	\$20,817
Capital Improvement	\$0
Salem Unit Facilities Costs	\$1,430
Other	\$0
FY 2011 Total:	\$467,796

Financial Administration and Reporting

The current 2005 Common School Forest Land Management Agreement, and 2010 sub-agreement, between ODF and DSL provide



operational and administrative guidance for the management of CSFL to ensure fiscal accountability and appropriate exchange of information between sister agencies. DSL and ODF have continued to work closely during the past several years to improve communication and understanding of fiscal reports and budgeting.



Forecasts and Outlooks

Long-Term Market Trends

The projection of the long-term market trends is based on data from IHS Global Insight Inc., Random Lengths, and interviews of analysts knowledgeable about Oregon's forest products industry.

The primary product marketed by ODF from BOFL and CSFL is sawmill-grade logs. These logs from state forest lands are processed predominantly into dimension lumber and plywood for the housing nonresidential, construction, and remodeling markets in the U.S. Accordingly, the Department's log market trends are largely influenced by the amount of new home construction, home remodeling, and non-housing construction.

Other important factors that contribute to the demand for logs from state forests include the influence of the demand for private logs and competition from alternative suppliers of logs and saw-timber.

Low housing prices and slow construction markets from the recession continue to sour markets for primary forest products and, consequently, timber marketed by ODF. U.S. demand for lumber and plywood has been slowly improving over the last year, but expectations are that the housing market recovery will continue to be very slow.

However, in spite of the delayed recovery in housing, nonresidential construction, and remodeling, lumber and plywood prices have increased slightly and higher product prices have added to increased regional demand for lumber. Private export logs have contributed to a stable outlook for demand for stumpage sold by ODF.

The recovery in U.S. economic growth, housing starts, and wood products markets has been subdued by historical standards. According to the most recent IHS Global Insight forecast, "There is still no sign yet of a pick-up in housing. Our forecast for improvement in 2012 had been dependent on stronger employment growth to revive household formation, absorbing excess supply. Pent-up demand for housing is building as young adults stay at home, and at some point will spark a major revival in housing activity. But it is becoming



harder to see that soon.” In spite of record low mortgage rates, averaging below 4.5 percent for 30-year fixed-rate mortgages, the outlook for housing has remained sour. Global Insight sharply reduced their 2011 housing starts forecast from 1.16 million to .61 million units and has delayed the expected recovery to what had been considered sustainable levels of 1.6 million on units to 2015. Some analysts still consider Global Insight to be overly optimistic.

Purchasers of timber sales from the Elliott State Forest are from the Coos Bay, Bandon, Roseburg, Riddle, and Eugene-Springfield areas. Companies purchasing these sales generally market the logs throughout southwest Oregon and the Willamette Valley to mills and markets that face the trends of the national economy and the wood products industry. Historically, demand for logs and stumpage harvested from Oregon’s forests have been highly correlated with national housing starts and are not expected to significantly improve until there is a turnaround in housing start levels.

As the national economic recovery progresses, excesses in the housing market will be worked off and housing-related industries should begin to recover, albeit very slowly. The collapse in housing starts and increased home sales resulting from improving home affordability should begin cutting into over-laden housing inventories, but this will take a long time. In the long term, effects of the recent recession are expected to ease but mortgage rates are expected to increase. Table 3 (Page 11) reflects how timber prices have changed over time and the affect on volume of timber removed.

There are several bright spots for timber-related industries in Oregon. Although a relatively small percent of Oregon’s timber harvests and no logs from Oregon’s state forest lands go overseas, regional exports affect ODF log prices. Exports of lumber and logs to China continue to grow and export prices to Japan and Korea are relatively strong giving a needed boost to demand for timber. Demand for export logs have recently softened, but remain at relatively high levels. Regional chip prices have remained strong. With decreased lumber production has come a scarcity of chips, stable prices, and chipping of smaller and low quality logs that would have otherwise gone to lumber production. Pole prices remain strong, although demand can be sporadic.

Over the next year, relatively low levels of housing starts and anemic economic growth are expected to result in little upward pressure on lumber and plywood prices, with further recovery in lumber, plywood, and log prices tied to a more robust economic turnaround, an improving job market, and a significant recovery in housing starts.



**Table 3. Common School Forest Lands Historical
Timber Harvest Value, Volume, and Average Stumpage Price
Fiscal Years 2002 through 2011**

Fiscal Year	Timber Sales Value of Timber Removed*	Timber Harvest Volume (MBF) Removed	Average Stumpage Price**
2011 Elliott State Forest	\$10,650,015	27,873	\$329
2011 Other CSFL	\$919,890	4,243	\$261
Total 2011	\$11,569,905	32,116	\$316
2010 Elliott State Forest	\$6,394,984	16,045	\$318
2010 Other CSFL	\$1,827,014	8,767	\$204
Total 2010	\$8,221,998	24,812	\$268
2009 Elliott State Forest	\$8,676,962	18,742	\$258
2009 Other CSFL	\$3,742,821	10,545	\$203
Total 2009	\$12,419,783	29,287	\$232
2008	\$11,988,895	22,974	\$421
2007	\$12,760,992	27,084	\$485
2006	\$7,609,658	17,833	\$492
2005	\$20,080,172	42,106	\$537
2004	\$14,260,450	32,520	\$439
2003	\$10,992,972	24,310	\$375
2002	\$14,043,117	29,557	\$423
Last 5-Year Average	\$11,392,315	27,255	\$344
10-Year Average	\$12,394,794	28,260	\$399

**Timber Sale Value is the gross timber sales' value before project work credits are subtracted*

***Average stumpage price of sold sales per thousand board feet*



Recovery in demand for logs may be delayed if U.S. economic growth stalls, which could happen if credit constraints prevent the economy from expanding and if labor market improvement remains anemic. In the longer run, an improving economy will result in recovering United States housing starts, higher levels of nonresidential construction spending, and increased remodeling activity. Increased United States economic growth combined with surging demand from China for lumber and logs could result in significantly increased regional Oregon state forest lands log prices in the long term.

Hardwood Sales Outlook

Historically Oregon's largest hardwood manufacturer has been Weyerhaeuser Hardwoods formerly known as Northwest Hardwoods. Recently Weyerhaeuser sold their hardwood facilities to a private equity firm, American Industrial Partners (AIP). Those facilities will now be called Northwest Hardwoods Inc.

Weyerhaeuser, an exporter of conifers, had relied on a change made in 2000 to Oregon Administrative Rule 629-031-0010 that allowed them to purchase hardwoods harvested from state forest lands. They were always an outlet for purchasers that bought ODF sales that contained red alder, maple, and other hardwoods. Now that Northwest Hardwoods Inc. is no longer part of Weyerhaeuser, they will be able to purchase ODF timber sales directly. This could be of benefit to all ODF districts with hardwood volumes since their manufacturing facilities are well scattered from Longview, Washington to their Oregon locations in Garibaldi, Eugene, and Coos Bay.

Table 4 provides information on hardwood volume and value from FY 2002 through FY 2011.



**Table 4. Common School Forest Lands Hardwood Volume and Value
Fiscal Years 2002 through 2011**

Fiscal Year	Total Number of Timber Sales	Total Number of Hardwood Bid Species Sales	Hardwood Volume Harvested	Hardwood Value Harvested
2011	15	0	550	\$192,840
2010	12	1	1,227	\$430,770
2009	8	0	494	\$178,802
2008	18	1	463	\$174,382
2007	10	1	1,063	\$142,744
2006	12	1	2,613	\$746,779
2005	12	0	1,286	\$555,439
2004	10	0	536	\$187,234
2003	10	1	889	\$352,515
2002	12	0	786	\$345,688



Common School Forest Land Management

Elliott State Forest Planning

The focus of work on the Elliott State Forest in 2011 was directed at the revision of the draft Elliott State Forest Management Plan (FMP) and Habitat Conservation Plan (HCP). This work has been ongoing since early 2000, when preparations began for the expiration of the marbled murrelet habitat Incidental Take Permit.

Planning work led to the drafting of a new FMP and HCP. The new HCP had public review in 2008 and work after the public review sought to resolve the resulting issues. The issues were largely resolved with the U.S. Fish and Wildlife Service, but issues with the National Marine Fisheries Service (NMFS) were not resolved. Differences focused on aquatic and riparian strategies.

In 2010, a scientific review was initiated with Oregon's Independent Multi-Disciplinary Science Team (IMST). The review focused on the scientific underpinnings of the draft HCP and draft Environmental Impact Statement (DEIS) regarding stream temperature, large wood recruitment, slope stability, and fine sediment delivery to streams via roads. In general, the IMST was unable to fully assess the scientific rigor and underpinnings of the DEIS analyses. This was based in part on the documentation of the analysis, the complexity of the analysis, and the timeframe of the review. The IMST made a number of critiques of the analysis and conclusions and concluded that, "... the DEIS ... is not sufficient to conclude with certainty that the goals of the draft HCP would actually be met."

Following delivery of the review, ODF and DSL met with NMFS. At that meeting, NMFS added a point that even if the state were to continue pursuit of the HCP, the IMST analysis would make it difficult to rely on the DEIS as part of that application.

Based on these factors, the State ceased pursuit of the HCP. The draft FMP was then modified in order to remove the requirement for an HCP; however it retains many of the same strategies as the draft FMP that accompanied the HCP. The revised draft plan relies on "Take Avoidance" for compliance with the Endangered Species Act, and is



designed to ensure that management is consistent with the legal mandates of the land. The revised draft plan has had two rounds of public review and is currently being prepared for adoption by the SLB and BOF. If adopted, the current FMP and HCP will be terminated and implementation of the new plan will begin in January 2012.

Timber Management Activities

Activities conducted on the 119,774 acres of CSFL managed by ODF include: timber harvest, reforestation and intensive management, and road construction and maintenance. These 119,774 acres are composed of two DSL Asset Management Plan classifications: Special Stewardship and Forest Lands. The Special Stewardship acres equal 29,944. The Forest Lands acres equal 89,830.

Approximately 71 percent of these lands are managed under the strategies described in the Elliott State Forest Management Plan (adopted in 1994). The remaining 29 percent is managed under three other plans: the Northwest and Southwest Oregon State Forests Forest Management Plans (both adopted in 2001 and revised in 2010) and the Eastern Region Long-Range Forest Management Plan (adopted in 1995).

Timber is harvested on CSFL through both regeneration and partial cut harvests. Regeneration harvests remove most of the trees on a site and allow a new stand to be established. Regeneration harvest is the most cost-effective harvest method. It maintains a diversity of age classes across the landscape, and creates the early seral habitats preferred by some wildlife species. Partial cut harvests provide an earlier flow of volume, improved stand growth, and accelerates the development of more complex habitat required by other wildlife species.

Harvests of timber on CSFL occurs through timber sale contracts. Information on CSFL timber sales is provided for timber sales sold during FY 2011, active timber sales where harvesting occurred during FY 2011, and planned timber sales for FY 2012. In addition, reforestation and intensive management activities can be summarized for each fiscal year, and represent an investment in future volume and revenue.

Investments in the forest infrastructure through road management activities support timber harvest and other management actions on the forest. These activities also increase the asset value of the forest. Each of these categories is further discussed in the following sections.



Timber Sales Sold During Fiscal Year 2011

During this fiscal year, 15 timber sales were sold that included CSFL (Table 5). These sales are estimated to produce a total volume of 42.1 MMBF with a value of \$9.3 million. Seven of the sales were from the Elliott State Forest, and will produce approximately 83 percent of the estimated revenue. There are a few sales remaining in the FY 2011 sale plan. Timber sale preparation has been completed and they will be offered in FY 2012. Revenue from sold sales will be received over the course of a three-year period. Total project costs from sales sold in FY 2011 will be about \$854,634. All were recovery sales (paid for based on volume measured after cutting rather than in a lump sum payment on standing cruise volume).

The Elliott State Forest, managed by ODF's Coos District, is the largest contributor to the volume and value of CSFL timber sales. During FY 2011, 77 percent of the statewide CSFL volume (22.6 MMBF) sold and 83 percent of the CSFL statewide net value (\$7,656,989) sold was generated on the Elliott State Forest. A five-year-average analysis illustrates that 79 percent of the statewide harvested volume and 76 percent of the harvested value has been generated from the Elliott State Forest. The total acreage managed by ODF consists of 86,367 acres of CSFL (90.7 percent) and 8,906 acres of BOFL (9.3 percent).

Fiscal Year 2011 Activity Summary

There were 26 active timber sales on CSFL during FY 2011. The volume of timber harvested from CSFL for these sales totaled 32.1 MMBF, with a timber value of \$11.6 million (Table 6). This is an increase in volume from FY 2010, which totaled 24.8 MMBF, with a decrease in value from FY 2010, which was \$8.2 million.

Volume and value details related to the active sales are shown in Table 6. Funds in this table represent the value of timber harvested during this period. For comparison, the revenues in Table 1 reflect actual revenue transferred to DSL. Differences are due to timing of receipts and to project costs. Project costs associated with active timber sales—work on roads, bridges, culverts, etc., are accomplished in conjunction with timber sales. Project costs on CSFL for FY 2011 from these active timber sales totaled \$736,977.



Table 5. Common School Forest Lands Timber Sales Sold in Fiscal Year 2011

Sale Name	ODF District	CSFL % of Sale	Total Sale Volume (mbf)	CSFL Volume (mbf)	CSFL Acres Partial Cut	CSFL Acres Clear Cut	Total Project Costs	CSFL Project Costs	Net Sale Value	Net CSFL Value
Puma Punch	Astoria	8	2,558	205	3	5	\$99,980	\$7,998	\$653,731	\$52,298
Stone Soup	Astoria	1	7,684	77	2	1	\$245,401	\$2,454	\$2,917,588	\$29,176
Comados	Coos	100	4,247	4,247	0	85	\$74,846	\$74,846	\$1,267,083	\$1,267,083
Flying Fish	Coos	100	5,371	5,371	0	76	\$154,235	\$154,235	\$2,217,622	\$2,217,622
Kelly Slim Cougar	Coos	100	3,491	3,491	0	53	\$188,112	\$188,112	\$1,175,076	\$1,175,076
Loose Shoes	Coos	97	2,236	2,169	0	104	\$68,928	\$66,860	\$638,517	\$619,361
Millicoma Lookout	Coos	100	2,916	2,916	0	54	\$98,273	\$98,273	\$980,191	\$980,191
Millicoma Meander	Coos	100	2,932	2,932	0	49	\$100,349	\$100,349	\$946,607	\$946,607
Stulls Ridge Steer	Coos	100	1,451	1,451	0	27	\$77,508	\$77,508	\$451,049	\$451,049
Boon-doggle	Klamath-Lake	100	1,896	1,896	327	0	\$11,758	\$11,758	\$227,138	\$227,138
Bear Creek Combo	Southwest Oregon	100	1,337	1,337	136	36	\$9,635	\$9,635	\$295,998	\$295,998
Coleman Thin	Southwest Oregon	100	989	989	103	0	\$21,510	\$21,510	\$237,800	\$237,800
Raspberry Mtn No. 3	Southwest Oregon	100	1,459	1,459	24	30	\$13,860	\$13,860	\$529,982	\$529,982
Black Goat	West Oregon	37	1,917	709	42	14	\$59,047	\$21,847	\$578,106	\$213,899
Southern Exposure	West Oregon	7	1,643	115	18	0	\$76,989	\$5,389	\$335,174	\$23,462
Totals:			42,127	29,364	655	534	\$1,300,431	\$854,634	\$13,451,662	\$9,266,742

The data is produced from an ODF sale plan database. All dollar amounts were rounded to the nearest whole dollar. All board foot amounts were rounded to the nearest board foot.



Planned Timber Sales for Fiscal Year 2012

The FY 2012 sale plan includes 517 acres of regeneration harvest and 206 acres of partial cutting on CSFL. Table 7 provides additional information on these planned sales. The total estimated CSFL volume is 26.1 MMBF, with an estimated net value of \$8.1 million. This value will not be realized until 2013 and beyond, depending on when sale purchasers choose to harvest these sales.

Project costs of about \$0.6 million will pay for road and bridge construction, road improvement and maintenance, rock stockpiles, culvert replacement, creation of wildlife trees and snags, and stream structure and riparian area rehabilitation. The Coos District's planned FY 2012 CSFL harvest is 22.2 MMBF, or 85 percent of the total CSFL harvest volume.

The DSL reviews ODF's Annual Operations Plans (AOPs).

Reforestation and Intensive Management

Reforestation activities include site preparation, planning, and tree protection. These activities are dependent on the timber harvest schedule, availability of suitable seedlings, and weather. Intensive management activities (Table 8) represent an investment in future benefits such as volume, timber quality, or habitat.

Invasive species (including noxious weed) management activities are conducted as an opportunity with other vegetation management practices, or to target weeds in specific areas. These activities may be conducted as part of a coordinated effort in partnership with other landowners and agencies. All of these activities are dependent on timing of completed sales, weather, and vegetation development. For these and other reasons, what is accomplished is often different than what was planned in any one operating year.

In addition to the acres completed and costs listed in Table 8, more management activities were completed on CSFL that were funded by the American Recovery and Reinvestment Act (ARRA). Approximately \$324,000 was provided by ARRA to complete 1,165 acres of pre-commercial thinning, 570 acres of invasive species control, and 550 acres of vegetation management to relieve planted trees from brush competition.



**Table 6. Active Timber Sales on Common School Forest Lands
Volume and Value, Fiscal Year 2011**

Sale Name	ODF District	Sale Number	CSFL Percent of Sale	CSFL Harvested MMBF	Estimated Value* CSF
Spilde Over	West Oregon	108001	100	0.62	\$240,483
Beavers Rock	West Oregon	108028	2	0.02	\$1,688
Buck N Bull	West Oregon	110020	92	0.49	\$107,310
Poole Haul	West Oregon	110051	100	0.10	\$21,771
Green Tangle	West Oregon	111027	58	0.20	\$23,994
Wimble Special	Astoria	109070	100	0.20	\$93,760
Summit Stone	Astoria	108052	22	0.12	\$14,615
Astoria Ridge Biomass	Forest Grove	211379	10	0.02	\$210
Chicken Combo	Tillamook	109031	2	0.09	\$20,880
Sharp Ridge	Coos	110035	100	1.71	\$360,083
Western Knife	Coos	108034	100	0.83	\$483,799
Little Salander	Coos	108035	100	2.71	\$1,604,997
Pileup Marlow No. 2	Coos	108078	13	0.30	\$76,264
Panther Bowl	Coos	109053	100	4.00	\$1,211,424
Elkhorn Ranch	Coos	110028	100	0.02	\$4,844
Lower Deer	Coos	110030	100	4.18	\$1,211,871
Stulls Ridge No. 3	Coos	110031	100	5.93	\$1,828,277
Sullivan Daggett Divide	Coos	110032	83	0.34	\$46,543
South Kelly Ridge	Coos	110033	100	0.09	\$28,563
Double Fish	Coos	110061	100	0.58	\$286,593
Long Cougar	Coos	110062	100	6.35	\$2,727,741
Pegleg Panther	Coos	110078	100	2.39	\$1,093,910
Comados	Coos	111018	100	0.10	\$32,500
Loose Shoes	Coos	111022	100	0.05	\$12,689
Beaver Domination Landing	Klamath-Lake	210809	100	0.37	\$18,422
Black Sheep Salvage	Klamath-Lake	211807	100	0.31	\$16,673
Totals:				32.12	\$11,569,905

**Value equals gross value of timber sales before project costs are subtracted.*



Road Management Activities

Roads essential to forest management are constructed or improved as needed. Construction includes any new roads and reconstruction or relocation of abandoned roads, while improvement included bring an old road up to current standards. Road vacating is used on a limited basis, and is the permanent closure of roads, including removal of stream crossings and complete stabilization of the road prism, and is used for roads that are no longer needed and that often pose risk to other resources.

Table 9 is designed to provide information about the road system management on CSFL as they vary by District. Activities listed occurred during FY 2011. The level of road activity increased moderately in FY 2011 due to several factors. Very little annual road work was accomplished in FY 2010 due to market conditions and sale timing. The FY 2011 activity level represents the improved market conditions and subsequent initiation of road activity in sale contracts that had been held to the later part of their contract periods. Additionally, sale units in recent sale plans have been located further from mainline roads, requiring a greater level of field improvements on dirt spurs.



**Table 7. Annual Operations Plans
Timber Sales Planned on Common School Forest Lands in Fiscal Year 2012**

Sale Name	ODF District	CSFL Percent of Sale	Timber Sale Volume (mbf)	CSFL Volume (mbf)	CSFL Acres Regeneration Cut	CSFL Acres Partial Cut	Total Sale Value	CSFL Project Costs	Net CSF Value
Leaping Larson	Coos	100	4,100	4,100	106	0	\$1,426,950	\$75,000	\$1,351,950
Minicomma	Coos	100	1,500	1,500	29	0	\$546,700	\$65,000	\$481,700
Mister Millipede	Coos	100	3,700	3,700	73	0	\$1,302,000	\$65,000	\$1,237,000
Otterpop	Coos	100	2,000	2,000	42	0	\$685,750	\$75,000	\$610,750
Salander Forks	Coos	100	5,900	5,900	107	0	\$2,059,750	\$75,000	\$1,984,750
Shoehorn	Coos	100	900	900	20	0	\$327,250	\$65,000	\$262,250
Three Buck Joe	Coos	100	4,100	4,100	80	0	\$1,424,500	\$75,000	\$1,349,500
Piminto	North Cascade	23	2,000	460	0	35	\$551,650	\$4,370	\$122,510
Quines Run	Southwest Oregon	100	2,000	2,000	30	108	\$331,800	\$26,000	\$305,800
Catapult	West Oregon	83	1,400	1,162	29	0	\$420,000	\$29,050	\$319,550
Green Spill ¹	West Oregon	3	200	6	0	2	\$54,375	\$709	\$923
Green Spill	West Oregon	40	700	280	0	60	\$113,100	\$19,656	\$25,584
Miller Time	West Oregon	1	2,400	24	1	0	\$720,000	\$805	\$6,395
Coos/ Elliott State Forest Subtotals:			22,200	22,200	457	0	\$7,772,900	\$495,000	\$7,277,900
Totals:			30,900	26,132	517	206	\$9,963,825	\$575,590	\$8,058,661

¹Green Spill is listed twice because there is acreage for one sale in two different counties.



**Table 8. Intensive Management Activities on Common School Forest Lands
Fiscal Year 2011**

Management Activity	Acres Planned	Acres Completed	Average Cost per Acre	Total Cost
Initial Planting	0	48	\$272	\$13,069
Initial Planting	415	376	\$300	\$112,774
Interplanting	95	96	\$138	\$13,243
Invasive Plants	4	1	\$3	\$3
Reforestation Surveys ¹	1,169	394	\$11	\$4,527
Release—Chemical—Hand	0	35	\$104	\$3,640
Release—Chemical—Aerial	10	101	\$62	\$6,276
Release—Mechanical—Hand	0	66	\$81	\$5,356
Site Preparation—Mechanical	0	25	\$150	\$3,742
Site Preparation—Slash Burning	108	134	\$23	\$3,044
Site Preparation—Chemical—Aerial	415	401	\$51	\$20,319
Site Preparation—Chemical—Hand	20	28	\$142	\$3,976
Tree Protection—Barriers	74	128	\$70	\$8,945
Tree Protection—Direct Control	1,439	1,180	\$46	\$54,023
Totals:	3,749	3,013	n/a	\$252,937

¹Reforestation Surveys evaluate plantation performance two to six years after establishment to determine the need for additional intensive management activities.



**Table 9. Annual Road Work on Common School Forest Lands
Fiscal Year 2011**

District/County	Aggregate/Paved Surface			Dirt Surface			Bridges
	Constructed	Improved	Vacated	Constructed	Improved	Vacated	Installed
Coos District/Elliott State Forest							
Coos County		6.8 miles		2.6 miles	8.2 miles		
Douglas County	0.5 miles				1.2 miles		
West Oregon District	0.09 miles			0.26 miles			
Lincoln County							
Tillamook District							
Tillamook County		0.1 miles		0.5 miles			



Stream and Watershed Restoration

Elliott State Forest—Fiscal Year 2011

The following activities were accomplished during the 2011 fiscal year under the Oregon Plan for Salmon and Watersheds:

- There were seven sales completed during the reporting period where additional trees were retained along stream buffers under ODF Harvest Measure 62 for the Oregon Plan. Two of these sales included large wood placement into coho streams to improve fish habitat as part of the timber sale.
- The Coos District cooperated with the Coos Watershed Association (CWA) and Oregon Department of Fish and Wildlife (ODFW) to complete three large in-stream projects during FY 2011. Trees and logs were placed in Upper Elk Creek and Marlow Creek and tree/log/boulder structures were placed in the West Fork Millicoma River to provide winter refuge and capture/retain spawning gravels for coho salmon.
- The Coos District cooperated with the Partnership for the Umpqua Rivers (PUR) and Oregon Department of Fish and Wildlife (ODFW) to complete three large in-stream wood placement projects to benefit coho salmon during the summer of 2010 using a chinook helicopter to place whole trees in Charlotte, Luder, and upper Dean Creeks.
- Coos District continues to have voting board members on the Coos Watershed Association and the Tenmile Lakes Basin Partnership



Carbon Storage

In FY 2011 Ecotrust completed a study of forest carbon regimes in the Elliott State Forest. Working closely with USFWS and ODF staff, Ecotrust utilized the latest forest inventory data from the Elliott State Forest to model carbon sequestration potential of the proposed draft HCP associated management prescriptions and three different annual harvest volumes: 30, 35, and 40 MMBF. In addition, Ecotrust developed a maximum storage scenario, in which all Elliott State Forest lands are managed for maximum standing forest biomass; a minimum storage scenario, in which all Elliott State Forest lands are managed for timber production while meeting the legal requirements of both the Oregon Forest Practices Act and the Endangered Species Act; and a regional average provided by U.S. Forest Service inventory data.

To develop these scenarios, Ecotrust:

1. Selected a recognized and applicable third-party forest carbon offset protocol;
2. Adapted the protocol to evaluate management proposals for the Elliott State Forest;
3. Defined carbon pools to be included in the analysis;
4. Modeled carbon storage over time, following management prescriptions and optimizing harvest schedules; and
5. Calculated carbon storage on the forest, while accounting for storage in wood products. The modeling outputs provide a long-term look, in five-year increments, at scenarios for forest growth, timber yield, and carbon storage under varying management plans. Results are summarized in Figure 1

Cumulative differences are described in Figure 1.

The full report is available on the Ecotrust website at:

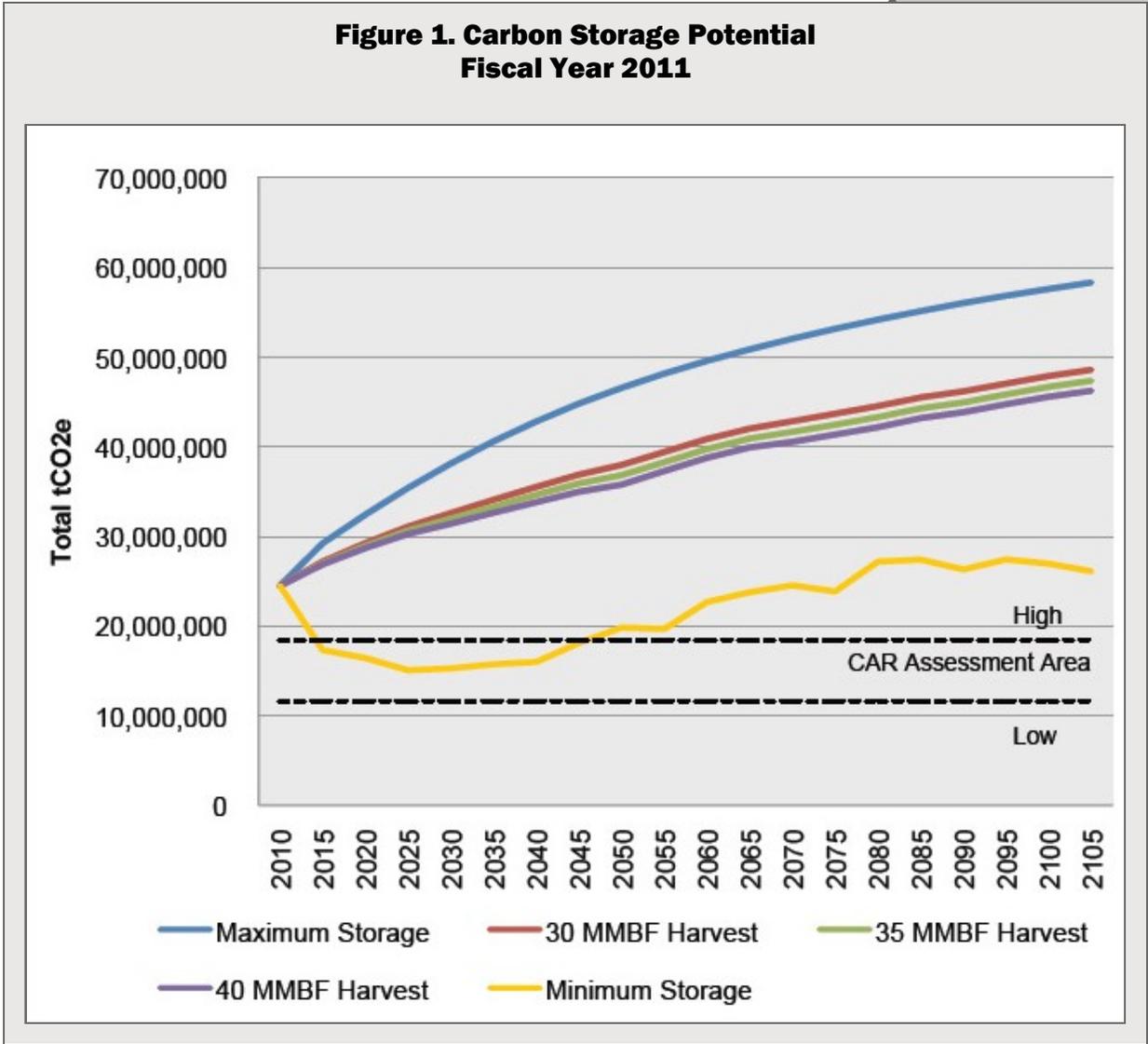
[http://www.ecotrust.org/forestry/
Carbon_Analysis_of_Elliott_State_Forest.pdf](http://www.ecotrust.org/forestry/Carbon_Analysis_of_Elliott_State_Forest.pdf)

As reported in the FY 2010 annual report, ODF conducted a careful investigation of the feasibility of carbon storage on the Elliott State Forest as a means to improve overall revenues. Results indicated that, as a number of protocol requirements, selling carbon offset credits sales would not be feasible. While carbon markets have changed since



2010, the basic barriers to public land sales of carbon offset credits are still in place. Investigation into carbon and carbon markets continues.

**Figure 1. Carbon Storage Potential
Fiscal Year 2011**



Fish and Wildlife

Marbled Murrelet Protocol Surveys

In 2010 (FY 2011), 569 surveys were completed at 381 stations representing 60 survey sites on the Elliott State Forest. These 60 sites represented 20 planned timber sales. Detections of marbled murrelets were recorded during 123 surveys at 43 different sites with 30 surveys recording sub-canopy behavior. Of the surveys with significant, sub-canopy detections, all were associated with protocol surveys of seven planned sales.

Table 10. Marbled Murrelet Management Areas Created in Fiscal Year 2011

MMMA Name	Sale Name	Acres
Cold Mill	Cold Crystal	92
Crystal	Cold Crystal	43
Scholfield	Goody Goody	198
Little Scholfield	Goody Goody	20
Larson Ridge	Leaping Larson	25
Total:		378

Sub-canopy detections of marbled murrelets resulted in the creation of five new Marbled Murrelet Management Areas (MMMA's) totaling 378 acres (see table, above). In addition to five new MMMA's being created, a total of 68 acres were added to three existing MMMA's from sub-canopy detections (see Table 11).



**Table 11. Acres Added to Existing
Marbled Murrelet Management Areas
in Fiscal Year 2011**

MMMA Name	Sale Name	Acres
Marlow Bottom	Marlow Bottom Marooned Marlow	16
Deer Molar	Deer Headwaters	47
Schumacher Headwater	Shoehorn	5
Total:		68

Nine sales, or portions of sales, were released for sale preparation after no significant detections were observed within the sale area during protocol surveys. The 2010 surveys began May 3 and ended August 4.

Northern Spotted Owl Density Surveys

In FY 2011, Kingfisher Ecological conducted Northern Spotted owl density surveys on the Elliott State Forest. Based on demographic protocol, there were eight pair sites, two resident single sites with pair status unknown, and nine resident single sites for a total of 29 owls and 19 activity centers. These estimates could be overestimates since some responses that were considered a new site may actually be from birds whose sites has shifted, possibly due to effects from barred owls. Observations of barred owls increased significantly since surveys were last conducted in 2003. The last density surveys on the Elliott State Forest were conducted in 2003 where 25 northern spotted owls and 13 activity centers were observed. Density estimates will again be conducted on the Elliott State Forest in FY 2012.



Section 2, All State Forests Lands



Stream and Watershed Restoration

Fifteen Years of Stream and Watershed Restoration on State Forests: 1995-2009

Stream and watershed restoration projects often span CSFL and BOFL, and can extend into other landowners as well. Reporting here covers work done on both CSFL and BOFL.

State Forest Management Plans establish an Aquatic and Riparian Strategy for implementing habitat restoration projects. These plans establish several principles that provide the context and approach that the State Forests Division uses to guide habitat restoration activities and priorities. This section summarizes restoration activities that have taken place on state forestland streams from 1995 to 2009.

Stream Restoration

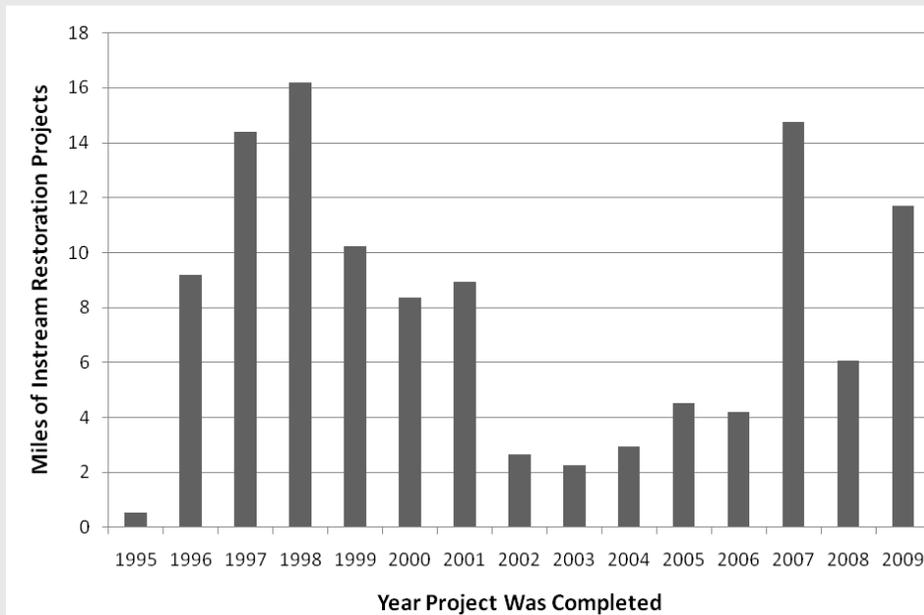
117 miles of Stream Habitat Restoration on State Forest Streams

These projects typically involve placing large wood and/or boulders in streams to improve habitat conditions for coho, steelhead, or Chinook salmon. The projects are designed and often implemented in collaboration with the local Oregon Department of Fish and Wildlife (ODFW) biologists. Some projects are associated with harvest units and done in collaboration with watershed councils, local non-profit



organizations, and Oregon Watershed Enhancement Board (Figure 2).

Figure 2: Miles of In-Stream Restoration Projects On State Forests Streams from 1995-2009*



*Total of 117 miles were treated.

Fish Passage Projects

373 Fish Passage Improvement Projects

The State Forests Division has actively worked to replace culverts to improve fish passage. This typically involves eliminating jumps into culverts and placing new culverts so they will hold gravels and simulate a natural streambed (Figure 3). These improvements make it possible for juvenile fish to enter and swim upstream through culverts.

Improved Access to 179 Miles of Streams

It is estimated that these fish passage improvement projects increased access to a total of 179 miles of stream.



Figure 3. Number of Crossings Replaced to Improve Fish Passage on State Forests Streams 1995-2009

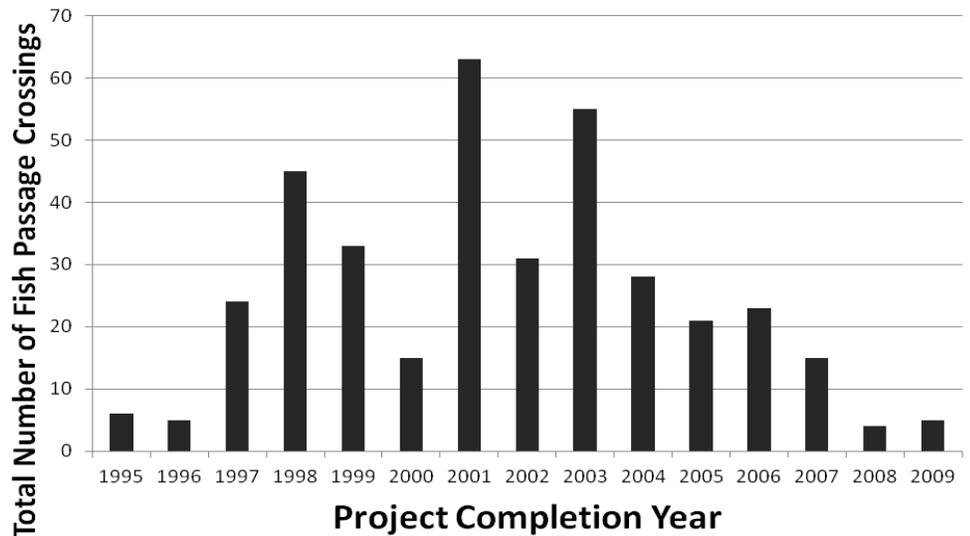


Table 10. Road Improvement Projects on all State Forests Districts 1995–2008*

Road Improvement Activity	Accomplishments
Grass Seeding	358 miles
Peak Flow Passage Improvement	2,214 crossings
Road Closure	27 miles
Road Decommission	95 miles
Road Reconstruction	18 miles
Road Relocation	2 miles
Road Survey	2,434 surveys
Improving Road Drainage	1,116 miles
Cross-drains to disconnect roads from streams	4,088 cross drains

*State Forests stopped reporting these types of activities in 2009.



Road Improvement

1,291 State Forest road-improvement projects

Several decades of monitoring and research has improved our understanding of how forest roads can affect water quality and fish habitat. This information has been folded into restoration activities designed to reduce sediment delivery from forest roads to streams and pass larger peak flows. These projects consist of grass seeding, replacing crossings to pass larger peak flows, closing roads, decommissioning roads, relocating roads, and surveying roads to identify problems, and improving road drainage with activities such as disconnecting roads from streams by installing additional cross drains (Table 10).

**Table 12. Total Number of Restoration Projects, by District
1995–2009***

District Name	Miles with Stream Improvement Projects	Total Number of Fish Passage Improvement Projects	Total Number of Road Improvement Projects
Astoria	10.5	141	402
Coos	34.22	27	132
Forest Grove	10.36	5	69
Klamath-Lake			1
North Cascade	5.5	27	97
Southwest Oregon	0.8	12	46
Tillamook	35.19	108	531
West Lane	2.50	22	
Western Oregon	17.9	31	13
Total:	116.97	373	1,291

**Data source: All restoration activities are reported to Oregon Watershed Enhancement Board and are available through the Oregon Watershed Restoration Initiative (OWRI) database. All information for this report came from an August 23, 2011 query of the OWRI database. Data for total cash and in-kind investments and 2010 projects were not available at the time this report was generated.*



Research and Monitoring

The Forest Management Plans for State Forests emphasize the need for adaptive approaches to management, in which the results of management actions are measured and compared to pre-determined objectives, and changes are made where necessary. This approach requires a commitment to long-term information gathering and the incorporation of that information into the decision-making process. In fiscal year 2011, the program directly supported research projects, provided land and expertise to others, and participated in research cooperatives.

Research Projects

Implementation Monitoring

Implementation monitoring broadly seeks to determine if management and conservation strategies specified in the Oregon Department of Forestry's Forest Management Plans (FMP) are being properly implemented. It also helps establish baseline conditions from which to measure effectiveness of the strategies. An implementation monitoring report was completed in 2010. Overall, Implementation Monitoring showed that department staff indicated understanding and intent to implement the strategies in the FMPs; broad compliance with FMP strategies in the upland and riparian management areas, with a few areas of over or under achievement of strategies; and a number of areas where the FMP targets or goals are unlikely to ever be achieved without significant investment (e.g. converting hardwood riparian areas to conifer). The full report is available at:

http://www.oregon.gov/ODF/STATE_FORESTS/docs/IMReportandRecommendations.pdf.

Stand Structure Development

The two objectives of this study are to examine how stand structure conditions are changing as a result of management prescriptions and to determine whether post-harvest stand structure conditions are developing as anticipated. 78 stands were sampled by contractors in



2007 and half of these stands were revisited in FY 11 to perform maintenance on plot centers and tree markings along with acquiring GPS coordinates. This study will continue as a long-term study in order to better describe the process of stand structure development and test assumptions in the Northwest Oregon State Forest Management Plan.

Riparian Function and Stream Temperature (RipStream)

The RipStream project is a joint monitoring effort designed to measure the effectiveness of stream protection rules as prescribed for State Forests and private forestlands. Three journal publications have resulted from RipStream work to date.

- The first publication laid the foundation for subsequent analyses by describing the importance of pre-harvest stream temperature variability and patterns.
- The second analysis focused on a strict regulatory perspective of stream temperature. This analysis indicated harvest to state FMP riparian standards did not exhibit exceedance rates that differed from pre-harvest, control, or downstream rates (5%).
- The third analysis left the regulatory perspective behind and addressed functional questions about what site (harvesting) or other environmental variables specifically influence stream temperature and the magnitude of temperature changes. Overall harvests on state forests did not result in changes to maximum stream temperatures.

Trask Watershed Study: Examining the effects of current forest practices on varying scales

The goal of the Trask Watershed Study is to quantify effects of forest harvest on the physical, chemical and biological characteristics of small non-fish headwater streams and the extent to which harvest on these small streams influences downstream fish reaches. This goal will be achieved through long-term, cooperative, multi-disciplinary research involving researchers from Weyerhaeuser Company, U.S. Geological Survey, U.S. Forest Service PNW Research Station, and ODF. The study is funded primarily by ODF/DSL and Weyerhaeuser with additional grants.

Preharvest data have been gathered in such areas as low flow hydrology, stream chemistry, macroinvertebrates, fish dynamics, and amphibian abundance and survival, FY 2012 will gather data from



effects of road building, and FY 2013 will begin commercial harvests and associated data gathering.

Projects with ODF Technical Support

Although the ability to fund external research has diminished from previous years, program and district staff have worked with principal investigators to provide land for study sites, technical assistance in plot establishment, and maintenance of study areas over time. These studies include:

- Long-term Response of Birds to Thinning Young Douglas-fir Forests
- Quantifying Trade-offs Between Biodiversity Conservation and Timber Production in Intensively Managed Forests

Research Cooperatives

Research cooperatives draw their membership from forest scientists and managers from private forest industry, state and federal forest management agencies, landowners, processors, and universities. Cooperatives create a pool of funding, scientific talent, and long-term continuity necessary to achieve their objectives. ODF/DSL contributed to the following cooperatives:

- Hardwood Silviculture Cooperative (HSC)
- Swiss Needle Cast Cooperative (SNCC)
- Stand Management Cooperative (SMC)
- Vegetation Management Research Cooperative (VMRC)
- Center for Intensive Planted Forest Silviculture (CIPS)
- Pacific Northwest Tree Improvement Research Cooperative (PNWTIRC)

For a full report on research and monitoring, see the Board of Forestry's website at:
[http://www.oregon.gov/ODF/PUBS/docs/
State_Forests_Research_and_Monitoring_Program_Summary_2011.
pdf.](http://www.oregon.gov/ODF/PUBS/docs/State_Forests_Research_and_Monitoring_Program_Summary_2011.pdf)



Diseases and Insects

Swiss Needle Cast

The disease of greatest concern to CSFL in FY 2011 is Swiss needle cast. In FY 2011, Swiss needle cast (SNC) reached an all time high for the second year in a row. SNC is caused by *Phaeocryptopus gaeumanni*, a native fungal disease of Douglas-fir that occurs throughout the Coast Range and western Cascades. It causes needles to turn yellow and fall prematurely from tree, ultimately reducing tree growth and survival. Tree mortality is rare, occurring only after many years of defoliation. Historically, the disease was of little consequence, causing premature shedding of three- and four-year-old needles. However, since the late 1980's, the disease has become particularly damaging to Douglas-fir forests on the west slopes of the Oregon Coast range, with the most severe damage occurring along the north coast in Tillamook and Lincoln counties.

On the ODF Coos District, the area with SNC symptoms has increased gradually over the past five years (Figure 5).

Some year to year variation in the survey is due to weather conditions prior to and during the survey that affect the visibility of symptoms. Surveys flown later in the survey window or after warm sunny periods typically detect more damage than surveys flown earlier or before warm weather develops. Part of the increase in 2011 may be due to the survey being flown later than usual.

The aerial survey shows only those areas where disease symptoms have developed enough to be visible from the air. SNC occurs throughout the entire survey area, but in many areas discoloration is not severe enough to enable aerial detection. The survey does not provide estimates of foliage loss or growth reduction. The survey is best used to depict the extent of moderate and severe discoloration, document damage trends over time, and establish a zone in which forest management should take into account the effects of the disease.

The main effect of SNC on forests is reduced volume growth due to premature loss of foliage. Average growth reduction in the area covered by the aerial surveys is approximately 20 percent. In addition to growth impacts, SNC alters wood properties and affects stand

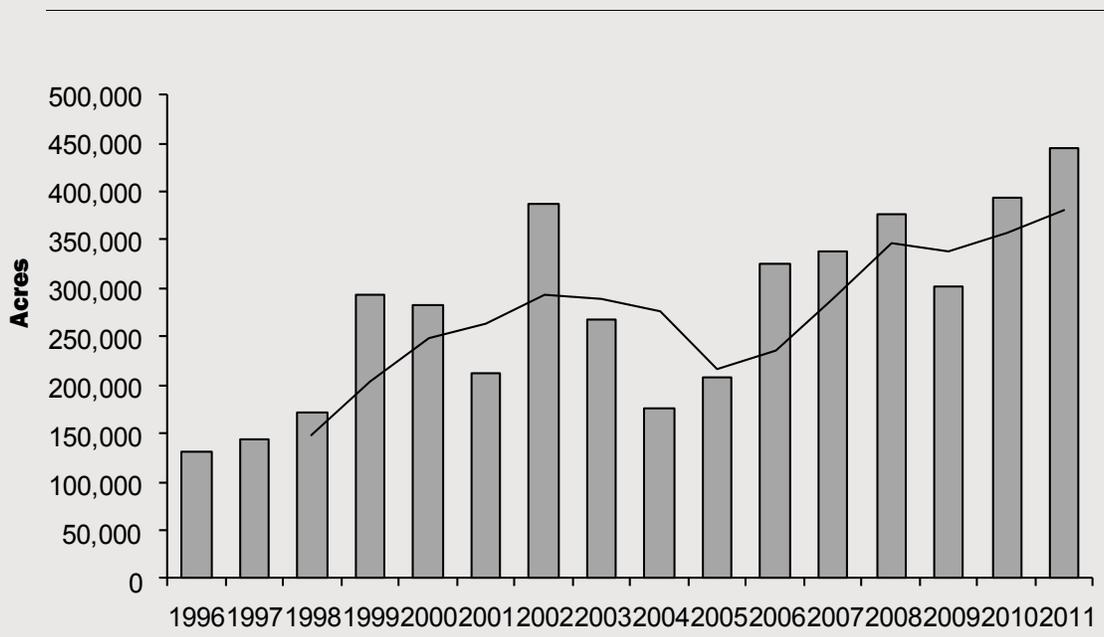


structure and development. This complicates stand management decisions, especially in pure Douglas-fir stands.

Douglas-fir stands growing in areas mapped as moderate or severe on the survey maps are evaluated on the ground to determine the severity of damage in terms of foliage retention and recent stand volume growth. A range of silvicultural options are available to mitigate the effects of SNC. These include planting non-host species or species mixtures, thinning to encourage non-host tree species and to maintain deep crowns and adequate growing space for Douglas-fir, deploying genetically tolerant Douglas-fir, and early harvest of severely infected stands followed by replanting with non-host species. Cooperative research efforts with the OSU Swiss Needle Cast Cooperative are underway to evaluate the effectiveness of a variety of approaches to reducing impacts from the disease.

The GIS data and a .pdf file of the SNC aerial survey maps can be accessed via the ODF web page at: <http://www.oregon.gov/ODF/privateforests/fhMaps.shtml>

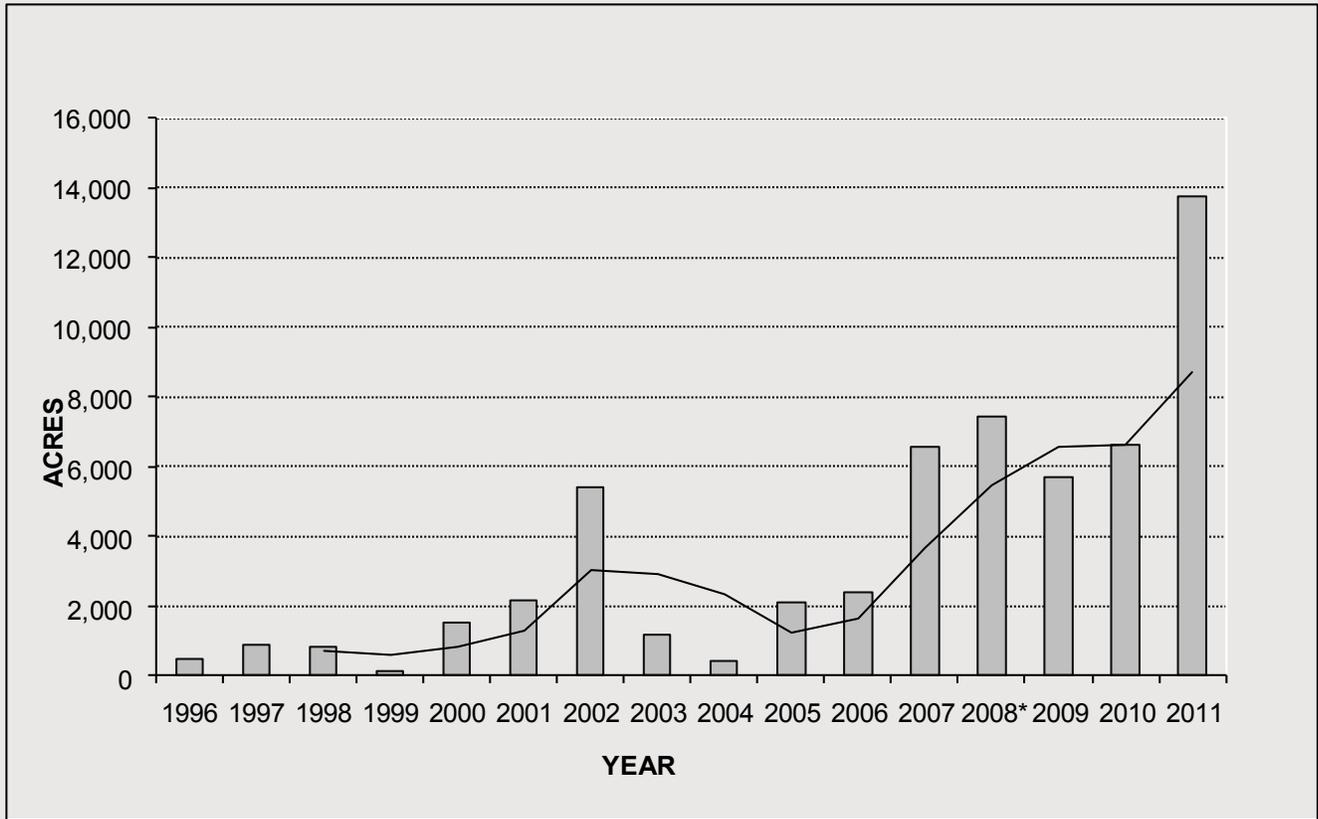
Figure 4. Swiss Needle Cast Aerial Surveys, Western Oregon 1996-2011*



*Trend in area of Douglas-fir forest in western Oregon with symptoms of Swiss needle cast detected during aerial surveys in April - June, 1996-2011. Results for 2008 were estimated by extrapolating from three sample survey blocks. Line is the three-year moving average.



Figure 5: Swiss Needle Cast on the ODF Coos District, as Detected by Aerial Surveys 1996-2011*



*Trend in area of Douglas-fir forest on the ODF Coos District with symptoms of Swiss needle cast detected during aerial surveys in April - June, 1996-2011. Results for 2008 were estimated by extrapolating from three sample survey blocks. Line is the three-year moving average.

For more information on Swiss needle cast, visit the website of the Oregon State University Swiss Needle Cast Cooperative (SNCC) at: <http://www.cof.orst.edu/coops/sncc/index.htm>



Stand Level Inventory on all State Forests

The Stand Level Inventory (SLI) is a forest inventory developed by ODF, and is used on the entirety of ownerships managed by the State Forests Division. Field measured sampling occurs in a carefully selected representative portion of inventory stands. These inventory cruise stand results are used to extrapolate inventory information in a supervised way to stands which do not have field-measured data. This provides site-specific information on trees, downed wood and non-tree vegetation (herbs-shrubs-grasses) in the cruised stands, statistically derived information about all stands for forest modeling purposes, and the ability to aggregate the information to report district and state-wide inventory totals for state forestlands and lands managed by the Division under agreement.

Statewide, as of the end of June 2011, there are 14,097 SLI stands, 6,585 of which (46.7%) have field-based measurements. Stands are delineated along differences in general timber characteristics – boundaries are drawn to group together areas with similar tree species, size and stocking. SLI boundaries often coincide with administrative boundaries, but individual stands may include more than one land ownership category such as BOFL, CSFL, and other lands managed by the Division under agreement. Inventory reporting specific to ownership category is facilitated by integration of the SLI data with ownership information from GIS. Table 12 shows the total number of SLI stands and acres by ODF District, the number and percentage of stands with field-based measurements, as well as the number of stands (* having one or more acre) of BOFL, CSFL and other landowner class lands.

CSFL and other landowner class lands, even though fewer in number and acreage in the SLI, benefit significantly with respect to the quality of inventory information by “participating” in the broader inventory effort done for all lands. Potential for the best application of field-measured stand data to the non field-measured stands is enhanced by the availability of more numerous field-measured stands from the entire dataset – without incurring the additional expense of measuring them (field-measurement costs are shared on a total acres percentage basis by District).



**Table 12. Stand Level Inventory Status of All Ownership Classes
Effective June 2011**

District	All Lands with Stand Level Inventories				Board of Forestry Lands		Common School Forest Lands		Other Lands	
	Total Stand Level Inventory Acres	Total Stands	Measured Stands	Measured Stands (Percent)	Acres	Stands	Acres	Stands	Acres	Stands
Astoria	136,852	1,708	1,028	60	134,845	1,691	2,002	65	—	65
Forest Grove	115,003	1,291	824	64	114,374	1,283	609	22	16 ¹	2
Tillamook	252,344	5,872	1,675	29	245,563	5,764	5,029	195	1,739 ²	60
West Oregon	36,714	962	432	45	29,799	831	6,889	279	10 ³	1
North Cascade	47,630	773	365	47	46,694	738	934	32	—	—
Western Lane	25,261	370	214	58	24,323	358	938	13	—	—
Southwest Oregon	17,419	311	172	55	9,339	176	8,080	135	—	—
Coos	95,273	2,123	1,458	69	8,900	286	86,360	1,981	—	—
Klamath-Lake	86,650	687	417	61	70,188	548	6,840	86	9,620	60
Totals:	813,146	14,097	6,585	46.7	684,024	11,695	117,682	2,808	11,385	123

¹BOF Administrative Sites

²Tillamook County (Kilchis) Park lands managed under agreement

³The Conservation Fund lands managed under agreement



Forest stands undergo continuous change over time, due to timber growth, mortality and harvest. The long-term goal for SLI is to maintain at least 50% of all stands with recent (with respect to change factors) field measured cruise information. In the past, ODF has conducted annual inventory cruising projects in order to acquire and maintain the needed measurements. During the period from July 2010 through June 2011, budget limitations precluded work on any State Forests funded new data acquisition projects. However, the Division did continue its earlier work on a project in Tillamook District – a project funded via an ARRA grant for a combined SLI and Swiss Needle Cast Assessment project. As part of work to assess forest health, the project included measurement and assessment of 147 forest stands comprising 10,498 acres that are of particular interest due to their susceptibility to, and impacts from, Swiss Needle Cast disease. Work on the personal service contract, valued at approximately \$100,000, began in February 2010 and is substantially complete.

There are no CSFL acres in the project; however the SLI data collected is applicable to inventory efforts on Tillamook District CSFL acres – having value for use in extrapolating inventory data to CSFL SLI stands which do not have field-measured data.

Stand Level Inventory Timber Volume Estimate

The table below shows the SLI-based estimate of merchantable net board foot volume by species for CSFL lands as of June 30, 2011. The acres information is net of area in roads – other non-forested acres are not removed, but the volume estimate does reflect the effect of low or non-stocked acres outside of roads.

SLI data is updated annually, typically just prior to the end of June each year – in time for using the updated data for this report. Staffing reductions and workload reorganization combined this year to impact completion of the update work. The following is a synopsis of the update status and basis by District for the SLI-based timber inventory estimates above:

- Astoria – most recent update completed in January 2011, operations updates (harvest, PCT, tree planting, etc.) included for the period through November 2010 only.
- Tillamook - most recent update completed in April 2011, operations updates (harvest, PCT, tree planting, etc.) included for



the period through October 2010 only.

- Klamath-Lake – most recent update completed in July 2009, data was grown forward using the inventory growth model for this report, no operations updates included since July 2009. SLI data for Gilchrist-area lands added for this report.
- Coos, Forest Grove, North Cascade, Southwest Oregon, Western Lane and West Oregon – this year’s updates completed, updates for all recent operations completed.



**Table 13. Timber Inventory Estimate for State Forests
Common School Forest Lands, June 30, 2011**

Total Net Scribner Board Foot Volumes (MBF)											
District	Acres	Douglas-fir	Cedar	True Fir	Hemlock	Pine	Spruce	Alder	Other	Total	Average MBF/Acre
Astoria	1,936	15,437	318	537	6,330	0	2,596	4,676	92	29,986	15.5
Coos	84,545	2,097,885	17,571	614	201,210	274	12,051	118,487	67,188	2,515,280	29.8
Forest Grove	595	7,656	40	49	104	0	0	1,046	195	9,090	15.3
Klamath-Lake	6,841	54	493	14,850	0	30,215	0	0	80	45,382	6.6
North Cascade	919	23,137	40	53	954	0	0	1,039	1,104	26,329	28.6
Southwest Oregon	7,848	81,501	2,999	5,731	434	7,652	0	63	11,105	109,484	14.0
Tillamook	4,956	51,134	891	1,204	30,796	0	12,261	13,275	536	110,097	22.2
Western Lane	919 ¹	21,866	408	777	2,166	0	0	641	1,363	27,221	29.6
West Oregon	6,727	127,975	968	68	7,123	9	1,553	17,869	5,123	160,689	23.9
Total:	115,285	2,426,646	23,728	23,574	249,117	38,150	28,460	157,097	86,787	3,033,558	26.3



Land Exchanges, Acquisitions, and Decertification

ODF is working collaboratively with DSL across multiple districts reviewing parcels for decertification consistent with the Asset Management Plan.

In 2008, 15 parcels (approximately 3,280 certified acres) of CSFL in Coos, Curry, Douglas, and Lane counties were conditionally decertified by the BOF and SLB. Of those 15 parcels, 11 parcels totaling 2,309 acres have been sold by DSL, with four parcels (approximately 971 acres) remaining to be sold. In 2010, 17 parcels (approximately 3,077 certified acres) of CSFL in Benton and Lincoln counties were conditionally decertified by both boards. Of those 17 parcels, 9 parcels totaling 1,146 acres have been sold by DSL with 8 parcels (approximately 1,931 acres) remaining to be sold.

Table 14 lists the acreage amounts for all of the CSFL managed by ODF by county.



**Table 14. Common School Forest Lands
Managed by ODF the Oregon Department of Forestry
by County**

County	CSFL Acres
BENTON	563
CLACKAMAS	113
CLATSOP	2,060
COLUMBIA	80
COOS	54,077
CURRY	1,352
DOUGLAS	34,526
JACKSON	2,062
JOSEPHINE	4,167
KLAMATH	6,827
LANE	907
LINCOLN	4,626
LINN	90
MARION	720
POLK	1,690
TILLAMOOK	5,584
WASHINGTON	250
YAMILL	80
Total:	119,774

Data effective 7/1/2011

Note: Report is based on legal acres, not GIS acres.





Common School Forest Lands Managed by ODF

