

STAND LEVEL INVENTORY

The Stand Level Inventory (SLI) is a forest inventory developed by the Oregon Department of Forestry (ODF) to serve as the information source on forest conditions for all lands managed by ODF's State Forests Division, hereinafter Division. The information is used for forest management analysis, assessments, activity planning, and status reporting. Field measured sampling occurs in a carefully selected, representative portion of inventory stands. These inventory cruise results are used to extrapolate inventory information in a supervised manner to estimate stands which do not have inventory cruise data. This methodology provides: site-specific information on trees, snags, downed woody debris, and understory vegetation in forested stands; statistics on forested stands for modeling purposes; and the ability to aggregate information to report district and state-wide inventory totals for State Forests and lands managed by the Division under agreement.

Inventory assessments are important for making efficient and effective forest management decisions. The goal of SLI is to maintain a sample of 25% to 50% of all stands with recent field measured inventory information. In past years ODF would conduct annual inventory collection projects to maintain this sampling rate. To accelerate the completion of the LiDAR-based inventory, SLI was updated for the 2025 reporting period using a linear interpolation of the five-year growth projections calculated during the previous complete SLI update (2021) with depletions (e.g., timber removals) calculated using spatial overlays between timber sale polygon and SLI stand polygon boundaries.

Beginning in FY 2021 the Division initiated a transition to a LiDAR based inventory system coupled with a densified grid of federal Forest Inventory and Analysis (FIA) program data. This inventory system is labeled: Enhanced Forest Inventory, or EFI. EFI is part of a strategic investment to provide more statistically robust data across all lands managed by the Division and will form the basis for planning, monitoring, analysis, and reporting related to forest management. Individual stand surveys, or SLI methodologies will continue to be part of the Division's inventory system and used for more localized planning efforts and specific monitoring questions. Forest stands continually change due to various factors such as harvest operations, natural disturbances, reforestation, and tree growth. To ensure accountability for these changes, regular updates to the inventory database are essential. Inventory updates are conducted annually. This year, all district updates have been completed, with forest stand data grown forward through June 2024. For all districts, this report reflects operations completed through December 2024.

Given the dynamic nature of ecological systems and the inherent challenges of sampling extensive natural resources, all inventory information, including volume, is subject to uncertainty. Annual updates to inventory and associated reports represent the Division's best estimates of current forest conditions. As ODF continually works to refine and enhance our inventory system, these annual reports should not be interpreted as a monitoring system for year-to-year trends. Instead, the changes observed during the annual update process reflect both an evolving understanding of the forest environment and changes occurring across landscapes. This results in a comprehensive, up-to-date forest inventory that serves as a tool for stand-level management, landscape-scale planning, and district-wide reporting.

STAND LEVEL INVENTORY DETAILS FOR ALL LAND OWNERSHIP CATEGORIES

Statewide, as of the end of June 2024, there are 12,396 SLI stands, 6,212 (50%) of which have field-based measurements. Note, these values are the same as those reported for the 2023 SLI annual report as no spatial edits to stand boundaries were performed in 2024 to allow inventory staff to focus on developing the remotely-sensed Enhanced Forest Inventory. Inventory data for non-measured stands are imputed from the measured stands. Stands are delineated along differences in general forest 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 Board of Forestry Lands (BOFL), Common School Fund Lands (CSFL) lands, and Other lands managed by the Division under agreement. The table below 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 in BOFL, CSFL and Other landowner categories.

District/Unit	All Lands with SLI			BOFL		CSFL		Other Lands	
	Total SLI Acres	Total Stands	Measured Stands	Acres	Stands*	Acres	Stands*	Acres	Stands*
Astoria	136,855	1,957	1,287 (65%)	134,835	1,940	2,005	69	16	1
Forest Grove	115,007	1,382	879 (63%)	114,380	1,371	611	22	16	2
Tillamook	250,582	5,683	2,210 (38%)	245,483	5,603	5,050	184	49	8
West Oregon	36,587	932	506 (54%)	29,813	814	6,748	262	26	8
North Cascade	47,473	831	175 (21%)	46,586	810	879	36	8	1
Veneta**	25,256	405	269 (66%)	24,324	391	932	13	0	0
Southwest Oregon**	16,793	327	184 (56%)	9,350	199	7,443	127	0	0
Coos**	10,985	301	200 (66%)	8,889	243	2,086	57	10	1
Klamath-Lake	105,825	578	502 (86%)	98,981	501	6,843	81	0	0
Totals	745,363	12,396	6,212 (50%)	712,641	11,872	32,597	851	125	21

* Stands overlapping ownership type are counted if there is at least one acre within the respective ownership type

** Units within Western Lane District

CSFL and Other landowner categories, even though fewer in number and acreage in the SLI, benefit significantly from the quality of inventory information 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).

STAND LEVEL INVENTORY TIMBER VOLUME ESTIMATE FOR BOFL LANDS

The table below shows the SLI-based estimate of merchantable net board foot volume by species for BOFL lands as of June 30, 2024. Note: estimates of net merchantable volume have been linearly interpolated from five-year projections performed during the previous SLI update with depletions calculated by intersecting sale polygons with stand polygons rather than a manual update. Net acres deducts the area associated with roads. Other non-forested areas are not removed and are reflected in the overall volume estimates.

Timber Inventory Estimate for State Forests Board of Forestry Lands, June 30, 2024											
District/Unit	Net Acres	Total Net Scribner Board Foot Volumes (MBF)									MBF/Acre
		Douglas-fir	Cedar	True Fir	Hemlock	Pine	Spruce	Alder	Other	Total	
Astoria	129,926	2,212,898	20,551	51,729	789,246	335	126,346	374,033	49,687	3,624,825	27.9
Forest Grove	111,438	3,285,343	19,616	74,163	197,199	305	138	211,946	59,041	3,847,752	34.5
Tillamook	241,094	3,323,758	33,506	42,333	919,230	107	236,311	1,527,214	71,532	6,153,991	25.5
West Oregon	28,773	946,919	2,500	306	21,787	173	1,927	68,510	24,652	1,066,774	37.1
North Cascade	45,268	962,979	24,804	27,032	125,483	568	0	23,642	28,809	1,193,316	26.4
Veneta**	23,789	793,886	5,691	322	88,222	0	0	70,341	84,569	1,043,031	43.8
Southwest Oregon**	9,111	182,004	3,892	7,259	1,509	5,327	0	570	31,645	232,205	25.5
Coos**	8,687	307,686	5,900	62	19,625	8	1,776	41,850	17,744	394,653	45.4
Klamath-Lake	98,981	14,711	4,842	48,846	0	496,804	0	0	5,107	570,310	5.8
Totals	697,066	12,030,184	121,302	252,052	2,162,301	503,626	366,498	2,318,107	372,786	18,126,856	26.0

** Units within Western Lane District

SLI data is updated annually, typically prior to the end of June. The SLI annual report reflects operational activities including regeneration harvests, thinning, and reforestation on all districts between January 1, 2024 and December 31, 2024

STAND LEVEL INVENTORY TIMBER VOLUME ESTIMATE FOR CSFL LANDS

The table below shows the SLI-based estimate of merchantable net board foot volume by species for CSFL lands as of June 30, 2024. Note: estimates of net merchantable volume have been linearly interpolated from five-year projections performed during the previous SLI update with depletions calculated by intersecting sale polygons with stand polygons rather than a manual update. Net acres deducts the area associated with roads. Other non-forested areas are not removed and are reflected in the overall volume estimates.

Timber Inventory Estimate for State Forests Common School Fund Lands, June 30, 2024											
District/Unit	Net Acres	Total Net Scribner Board Foot Volumes (MBF)									MBF/Acre
		Douglas-fir	Cedar	True Fir	Hemlock	Pine	Spruce	Alder	Other	Total	
Astoria	1,933	33,519	317	582	10,452	6	4,352	4,525	505	54,258	28.1
Forest Grove	597	14,665	3	19	1,118	0	0	1,350	283	17,438	29.2
Tillamook	4,965	86,630	1,532	1,679	44,265	12	13,696	17,849	1,009	166,672	33.6
West Oregon	6,559	226,512	847	0	11,010	3	2,061	18,962	9,065	268,459	40.9
North Cascade	857	22,765	87	24	995	0	0	944	1,503	26,318	30.7
Veneta**	916	18,580	402	1,133	2,968	0	0	860	1,997	25,939	28.3
Southwest Oregon**	7,353	105,305	2,658	5,054	92	13,791	0	100	21,805	148,804	20.2
Coos**	2,055	46,567	1,014	449	4,378	567	13,572	1,031	5,395	72,974	35.5
Klamath-Lake	6,843	28	1,357	11,448	0	39,389	0	0	2,480	54,702	8.0
Totals	32,078	554,570	8,217	20,388	75,278	53,767	33,681	45,620	44,042	835,563	26.0

** Units within Western Lane District

SLI data is updated annually, typically prior to the end of June. The SLI annual report reflects operational activities including regeneration harvests, thinning, and reforestation on all districts between January 1, 2024 and December 31, 2024