

Oregon Smoke Management Annual Report

2005



"STEWARDSHIP IN FORESTRY"

OREGON DEPARTMENT OF FORESTRY
FIRE PROTECTION DIVISION
SMOKE MANAGEMENT AND FUELS

OREGON SMOKE MANAGEMENT
ANNUAL REPORT
2005

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(Annual Report available online at <http://oregon.gov/ODF/FIRE/SMP/SMR2005.pdf>)

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OREGON DEPARTMENT OF FORESTRY

SMOKE MANAGEMENT 2005 ANNUAL REPORT

2005 SUMMARY

- **Acres burned** – In western Oregon 63,669 acres were burned and 80,468 acres were burned in eastern Oregon. Acres treated in western Oregon were nearly 25 percent above average while eastern Oregon burning was more than 25 percent below average.
- **Intrusions** – There were six smoke intrusions into designated areas and four intrusions into eastside protected areas.
- **Smoke impact** – About 20 hours of smoke impact into designated areas were recorded. Three impacts were light, two were moderate, and one was heavy.
- **Emissions** -- Emissions leveled off this year and remained considerably below the goal set for year 2000 and beyond.
- **Visibility** – Visibility impairment of the Class 1 wilderness areas was very minor contributing to only 1.5 percent of the time during the visibility impairment period.

PROGRAM OVERVIEW

The Oregon Smoke Management Plan was developed as a voluntary program in 1969 and adopted as a regulatory program by the State Forester and the Environmental Quality Commission (EQC) in 1972. The plan has gone through several major revisions since then. The last major revision to the plan was completed in 1992. A review committee was established in 2002. This committee conducted an extensive review of the Smoke Management Plan. Their final report was published in September 2005.

The plan's overall purpose is to keep the smoke from forestland prescribed burning from being carried to certain "designated areas" and other areas sensitive to smoke. The plan is a framework through which emission reduction goals were achieved. The State Forester administers the plan, in cooperation with landowners, land management agencies and air quality agencies. The plan applies to state, federal, and private forestland in Oregon. Mandatory smoke management constraints apply to burning in western Oregon, the Deschutes National Forest, and federal forest lands in the Blue Mountains of Northeast Oregon. Voluntary programs are in effect in the Klamath Falls and Lakeview areas, as shown in Figure 1A. The Oregon

Smoke Management Plan contains six principle objectives. These objectives are to:

1. Protect public health,
2. Minimize smoke intrusions into designated population areas,
3. Reduce emissions from prescribed burning,
4. Protect visibility in Class 1 wilderness areas during the summer months,
5. Maximize burning opportunities while minimizing emissions, and
6. Coordinate with other state smoke management programs.

PROGRAM SUMMARY

Audits:

The Oregon Smoke Management Plan goal is an annual audit of approximately one-percent of the prescribed burns conducted in the restricted area. Approximately one-half of the audits are conducted on the day of the burn and one-half are conducted prior to

the burn. The purpose of these audits is to help maintain consistent data reporting and monitor the effectiveness of the Oregon Smoke Management Program.

Pre-burn audits were conducted on randomly selected, registered units before burning. Seventeen pre-burn audits were desired and nine were completed. Burn day audits were conducted on the day the units were burned. The auditors randomly selected units for burn day audits. Sixteen burn day audits were desired and eight were completed.

Audited units were burned in a manner consistent with the burn permits, burn plans, and written and verbal instructions in regard to air quality. All units audited were close in reported tonnage burned vs. audited tonnage.

Meteorological Services:

Oregon Department of Forestry meteorologists provide weather forecasts and burning instructions and advisories for western Oregon (restricted area), federal

lands in northeast Oregon, and voluntary areas around Klamath Falls, La Grande, and Lakeview. ODF meteorologists provided assistance to the Lakeview wood stove smoke control program. Through a cooperative agreement with DEQ they are making the open burning forecast for the Willamette Valley north of Lane County during the period that field burning is not being conducted.

Other forecast services included weather support for significant weather events (heavy rain, wind, etc.). ODF meteorologists provide watches and warnings for potential debris flow landslides caused by excessively heavy rains in western Oregon. One warning was issued in 2005.

**PROGRAM ACCOMPLISHMENT
DATA**

The following tables and figures provide detailed information of smoke management program. The data details accomplishments for 2005 and comparative information with previous years.

Figure 1A

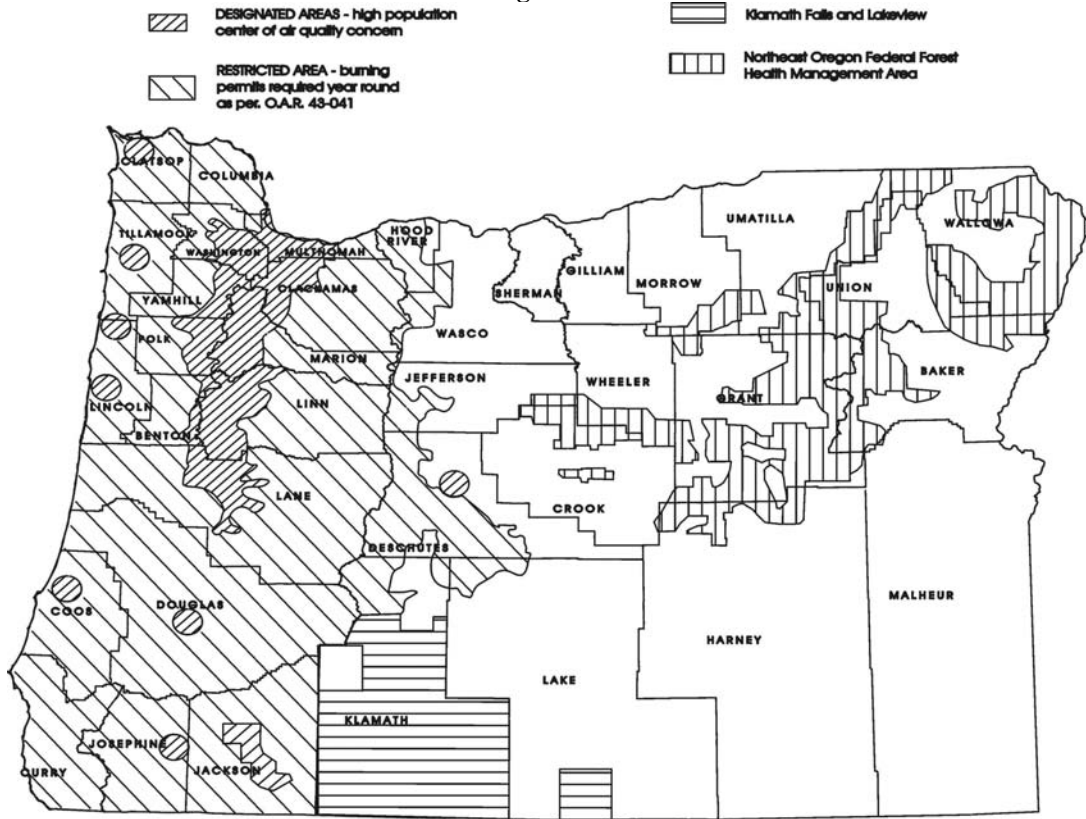


Figure 1B

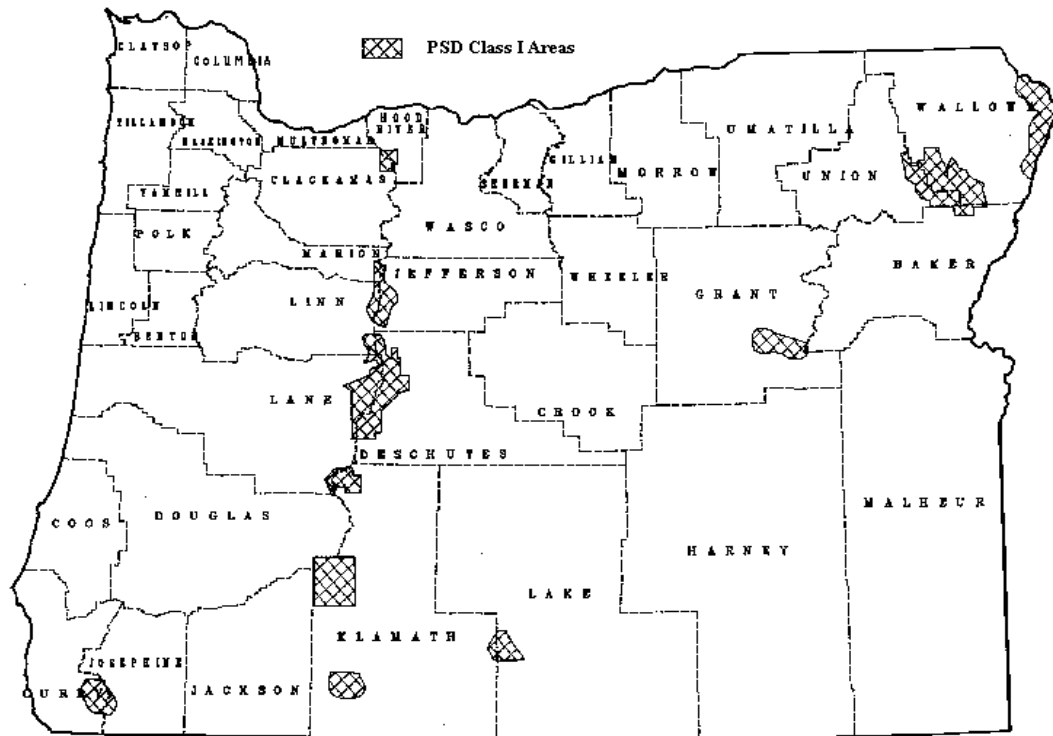


TABLE 1
1996-2005 ACCOMPLISHMENT SUMMARY

Burning totals within the restricted area:

Year	Total No. Units	No. Units Burned	Acres Burned	Tons Burned	No. Intrusions
1996	3,041	2,205	38,755	766,414	6
1997	3,334	2,454	45,641	888,723	4
1998	3,092	2,313	47,494	809,729	3
1999	3,010	2,302	48,292	866,964	8
2000	3,437	2,674	57,035	978,156	4
2001	3,129	2,340	50,319	966,522	4
2002	3,430	2,427	56,713	886,987	1
2003	3,551	2,329	46,017	842,918	2
2004	3,964	2,906	65,520	1,146,628	10
2005	3,872	2,786	63,669	1,106,023	6
Average	3,386	2,474	51,946	925,906	5

Burning totals outside of the restricted area:

Year	Total No. Units	No. Units Burned	Acres Burned	Tons Burned
1996	1,699	880	98,799	740,972
1997	1,861	1,049	138,699	1,036,111
1998	1,379	742	128,654	1,730,481
1999	1,418	867	143,876	827,115
2000	938	668	143,387	746,773
2001	1,073	569	61,058	428,133
2002	1,109	698	139,552	678,653
2003	1,288	650	92,679	609,582
2004	1,028	612	89,846	640,542
2005	941	500	80,468	617,312
Average	1,273	724	111,702	805,567

Figure 2A

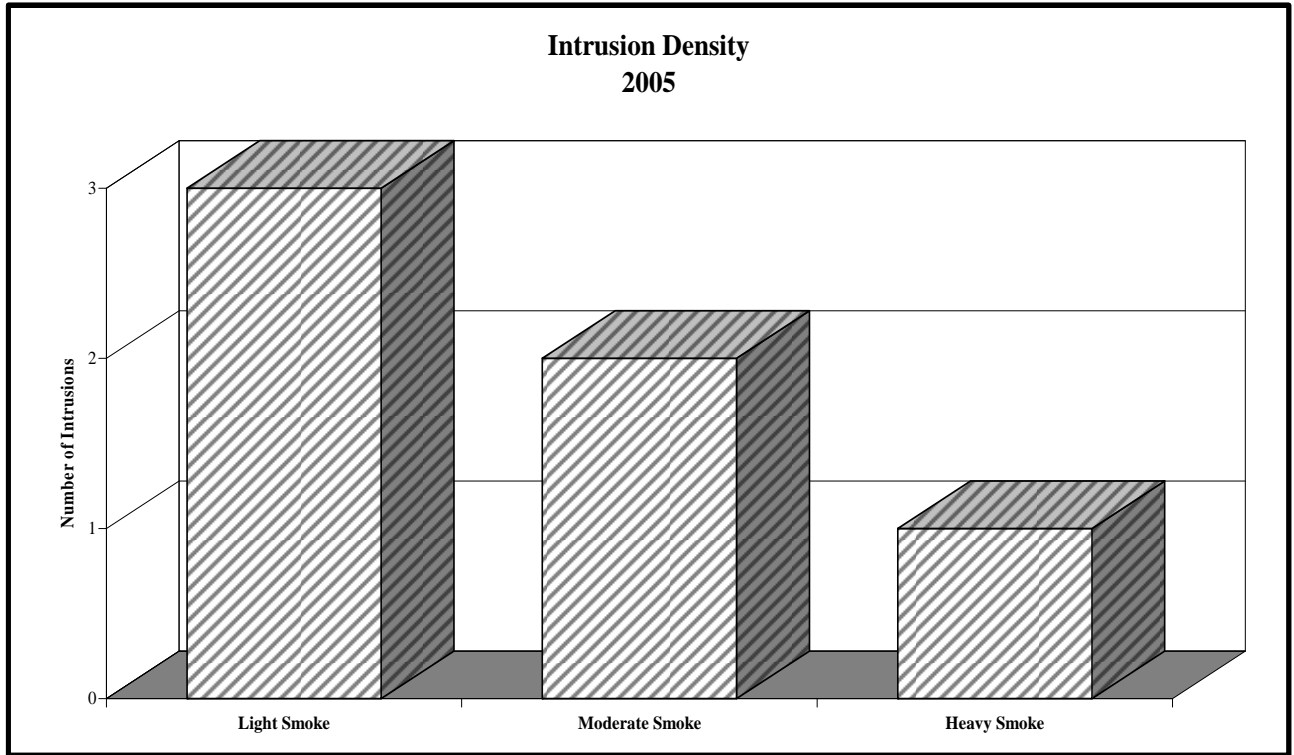


Figure 2B



Figure 3A

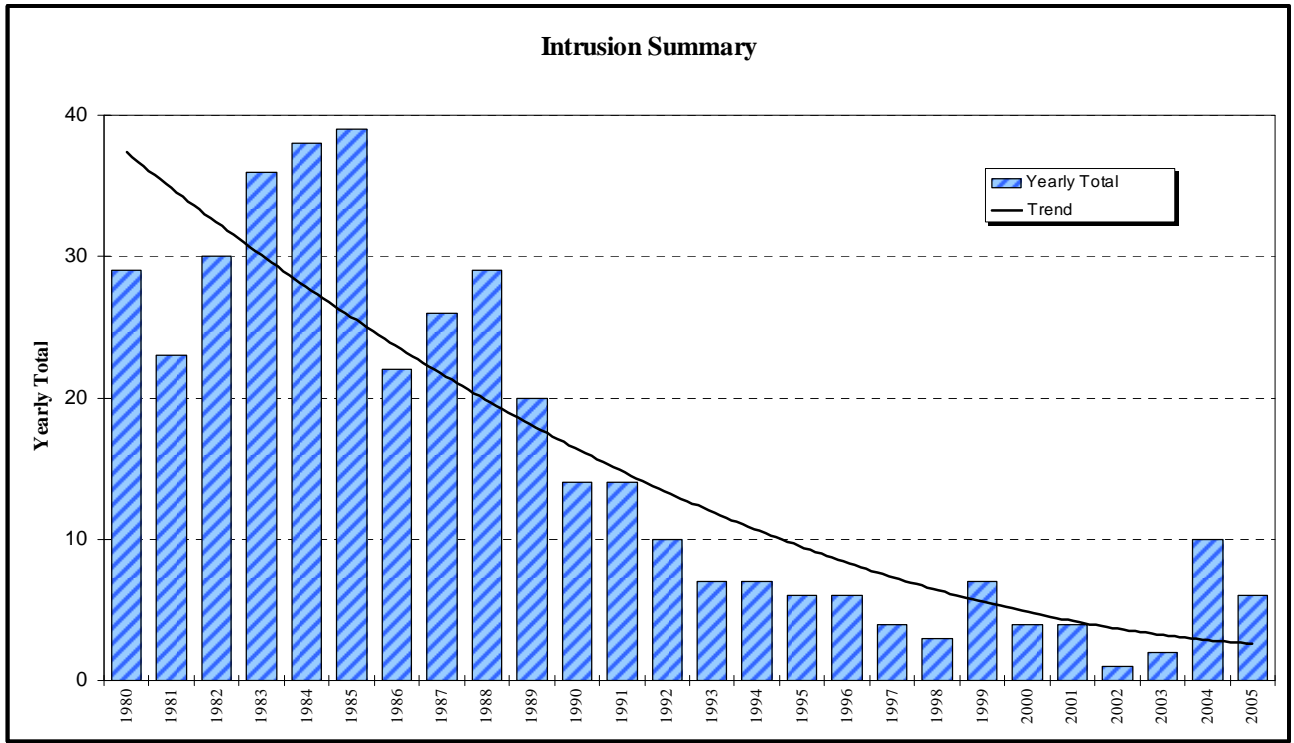
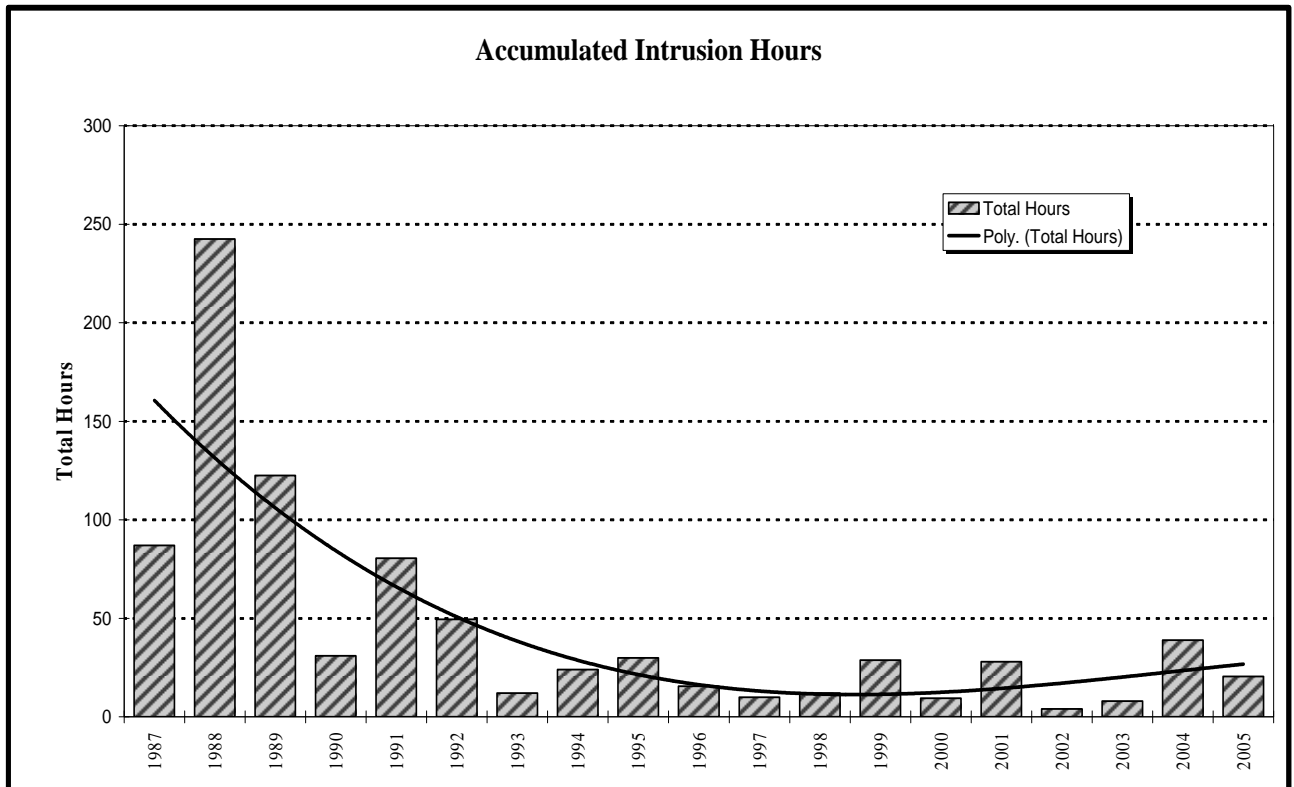


Figure 3B



**TABLE 2A
SMOKE INTRUSION SUMMARY – 2005**

Restricted Area

Date	District/ Forest	Primary Area Affected	Unit No.	Owner Class	Intensity	Length
May 27	West Lane	Eugene	03-781-51238-00	Private	Moderate	2
Oct 13	Santiam	Mid Willamette Valley	05-792-43133-01	Private	Moderate	2
Oct 14	Coos FPA	Eugene	04-740-61618-01 04-740-61618-00	Private	Light	1
Oct 14	SWO	Grants Pass	03-712-78687-01	Private	Light	1.5
Oct 18	Deschutes N.F.	Bend	05-406-10199-19	USFS	Heavy	12
Nov 2	Douglas FPA	Eugene	04-730-71682-00	Private	Light	2

**TABLE 2B
PROTECTED AREA SMOKE INTRUSION SUMMARY –2005**

Non-Restricted Area

Date	Forest	Area Affected	Owner Class	Intensity	Length
Oct. 18-19	Wallowa- Whitman NF	La Grande	USFS	Unknown	12 hours
Oct. 23	Wallow- Whitman NF	La Grande	USFS	Moderate	8 hours
Oct. 24-25	Wallow- Whitman NF	Baker City	USFS	Moderate	14 hours
Nov. 18	Malheur NF	John Day	USFS	Light	19 hours

Figure 4

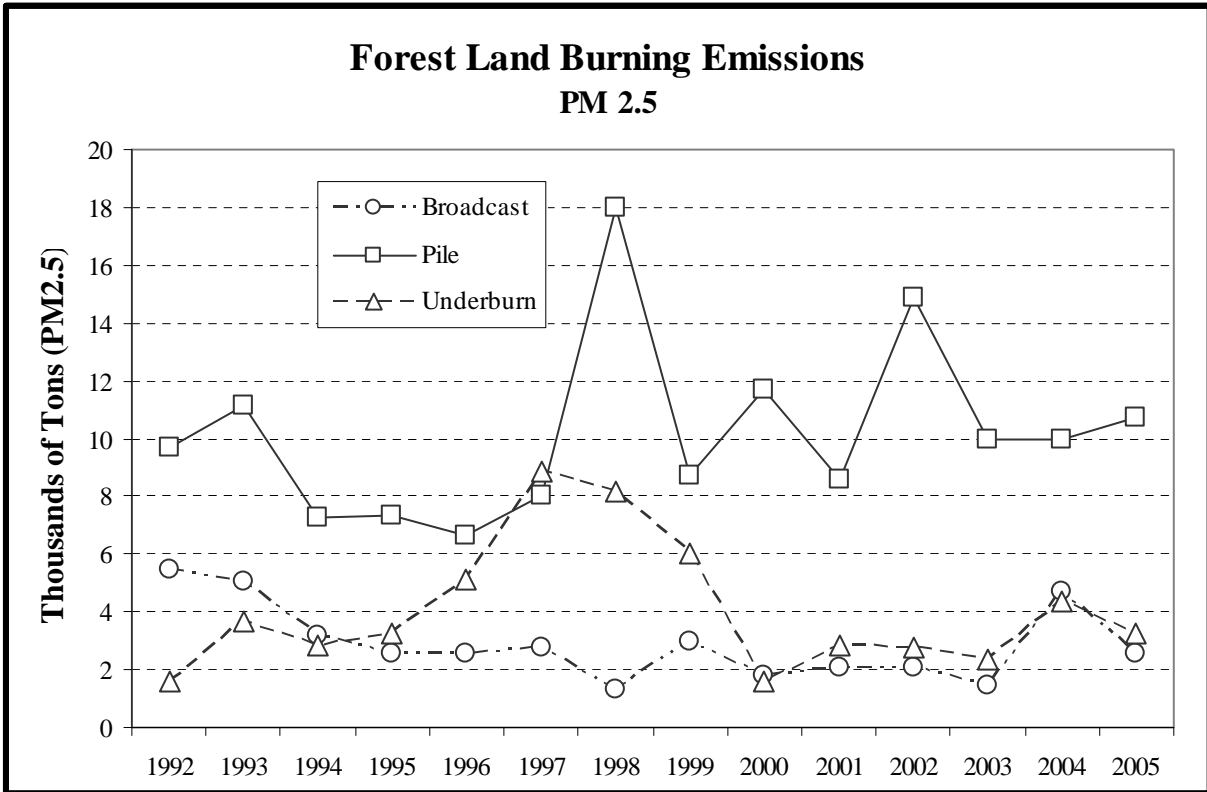


Table 3A

PM 2.5 Emissions (Tons) Broadcast											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Astoria	79	37	15	9	6	1	0	0	0	0	0
Central Oregon	0	0	0	0	0	296	0	508	235	2246	301
Clackamas-Marion	80	48	43	77	19	98	19	0	0	0	0
Coos FPA	641	527	633	464	758	748	764	583	369	1066	666
Crater Lake NP	0	0	0	0	0	0	0	0	0	0	0
Deschutes NF	7	14	5	0	1	1	1	1	0	34	93
Douglas FPA	105	93	249	55	86	137	140	88	58	131	96
Eastern Lane	12	5	26	0	0	32	3	0	0	0	0
Forest Grove	65	42	35	51	31	33	22	14	24	25	3
Fremont NF	0	0	0	0	0	0	54	11	0	0	0
Klamath NF	4	8	18	0	0	0	0	0	0	0	0
Klamath-Lake	1	66	410	0	1549	0	502	0	102	0	1065
Linn	20	0	46	27	9	4	4	0	0	0	0
Malheur NF	255	251	118	61	149	0	69	11	0	94	0
Mt. Hood NF	32	17	13	0	0	0	0	0	39	147	29
North Cascade								4	169	4	0
Northeast Oregon	0	0	0	0	0	0	0	11	51	0	0
Ochoco NF	129	27	101	3	9	12	24	82	6	17	0
Rogue River NF	52	0	0	0	18	0	9	0	0	0	0
Siskiyou NF	47	56	108	37	21	32	0	0	0	138	9
Siuslaw NF	7	44	4	59	6	0	0	18	3	2	0
South Cascade								22	0	26	0
Southwest Oregon	3	49	59	41	85	17	87	3	2	25	103
Tillamook	68	6	0	0	4	0	0	0	0	1	0
Umatilla NF	61	264	129	23	52	2	51	83	0	258	0
Umpqua NF	172	97	60	1	0	1	12	36	4	7	0
Walker Range	0	0	0	0	0	0	0	0	0	0	0
Wallowa-Whitman NF	19	14	169	3	10	29	43	165	11	15	52
West Oregon	414	508	259	236	97	254	165	265	190	242	55
Western Lane	106	49	133	70	75	106	72	143	105	200	98
Willamette NF	185	370	109	65	17	3	0	4	0	8	1
Winema NF	0	0	0	0	0	0	7	0	0	0	7
Total	2564	2592	2742	1282	3002	1806	2048	2052	1368	4686	2578

Table 3B

PM 2.5 Emissions (Tons) Pile											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Astoria	251	121	427	355	486	261	539	325	435	407	525
Central Oregon	322	710	523	11264	651	503	312	522	164	303	216
Clackamas-Marion	32	55	154	53	208	387	446	0	0	0	0
Coos FPA	826	905	880	1023	945	1146	1152	1078	1290	1294	1338
Crater Lake NP	0	0	0	0	0	0	0	0	0	0	0
Deschutes NF	360	272	126	132	140	268	106	92	42	71	39
Douglas FPA	256	298	262	322	381	353	537	443	606	841	520
Eastern Lane	310	621	694	734	920	727	528	0	0	0	0
Forest Grove	298	374	326	415	336	535	640	612	590	742	520
Fremont NF	74	0	8	0	0	1	0	1	0	6	8
Klamath NF	3	0	0	0	0	0	0	0	0	0	0
Klamath-Lake	261	202	50	322	150	478	34	542	1939	641	652
Linn	446	495	677	597	829	1233	1169	0	0	0	0
Malheur NF	412	137	116	184	103	76	24	189	43	174	63
Mt. Hood NF	80	42	21	97	42	196	3	210	1	22	27
North Cascade								233	67	497	248
Northeast Oregon	813	188	1488	144	397	581	368	471	230	124	518
Ochoco NF	119	217	98	170	286	130	7	10	3	0	0
Rogue River NF	51	24	95	49	53	39	2	150	123	194	141
Siskiyou NF	34	12	138	8	29	23	32	25	43	309	478
Siuslaw NF	0	3	0	1	9	8	0	3	2	1	4
South Cascade								1847	1368	1647	2367
Southwest Oregon	50	70	271	302	333	461	268	399	480	683	812
Tillamook	46	92	66	20	122	115	84	73	137	184	248
Umatilla NF	19	0	0	0	9	11	10	50	4	16	2
Umpqua NF	83	16	47	78	68	27	93	19	8	56	39
Walker Range	580	524	42	43	340	1559	107	448	504	13	25
Wallowa-Whitman NF	32	25	14	71	164	159	83	171	35	69	3
West Oregon	480	686	679	834	1127	1128	1053	1038	1106	1023	1160
Western Lane	208	313	510	517	464	757	625	316	513	412	499
Willamette NF	200	92	148	214	120	121	26	61	63	60	144
Winema NF	662	142	169	35	15	388	323	145	165	156	99
Total	7308	6636	8029	17984	8727	11671	8571	9470	9961	9945	10695

Table 3C

PM 2.5 Emissions (Tons) Underburn											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Astoria	0	0	0	0	0	0	0	0	0	0	0
Central Oregon	7	0	3	46	74	0	30	36	0	0	8
Clackamas-Marion	0	0	0	0	0	0	0	0	0	0	0
Coos FPA	0	0	0	0	0	0	0	0	0	0	0
Crater Lake NP	0	0	0	0	0	0	0	22	0	0	0
Deschutes NF	355	281	389	420	287	104	283	105	178	323	178
Douglas FPA	0	0	0	0	0	0	0	1	0	0	0
Eastern Lane	0	0	0	0	0	0	0	0	0	0	0
Forest Grove	0	0	0	0	0	0	0	0	0	0	0
Fremont NF	889	2023	1007	2224	2293	78	501	586	483	1341	171
Klamath NF	5	2	25	27	0	0	0	0	0	0	0
Klamath-Lake	20	159	396	1797	1053	0	129	0	20	0	11
Linn	0	0	0	0	0	0	0	0	0	0	0
Malheur NF	470	972	2522	1071	1021	11	356	251	265	851	405
Mt. Hood NF	111	104	92	10	102	3	4	0	0	31	8
North Cascade								0	0	0	0
Northeast Oregon	0	0	0	0	0	0	0	0	0	0	35
Ochoco NF	662	473	1314	771	409	330	412	306	0	218	95
Rogue River NF	82	40	52	48	35	11	12	42	117	5	24
Siskiyou NF	9	16	58	6	14	71	8	62	6	20	1
Siuslaw NF	0	0	0	0	0	0	0	0	0	0	0
South Cascade								0	0	0	0
Southwest Oregon	3	6	38	54	42	123	103	178	95	97	109
Tillamook	0	0	0	0	0	0	0	0	0	0	0
Umatilla NF	167	498	1504	766	296	394	59	293	144	168	358
Umpqua NF	10	99	130	150	48	83	155	140	17	92	58
Walker Range	0	0	0	0	0	0	0	0	0	0	0
Wallowa-Whitman NF	316	408	1015	553	251	313	561	557	901	1011	1391
West Oregon	0	0	0	0	0	0	0	0	0	0	0
Western Lane	0	0	0	0	0	0	0	0	0	0	0
Willamette NF	18	1	26	38	76	67	91	28	67	40	61
Winema NF	136	26	267	185	29	18	138	130	80	180	355
Total	3260	5108	8838	8166	6030	1606	2842	2736.4	2373	4377	3268

Table 4
Class 1 Area Visibility Protection Period Burning

Year	Cascade Range			Coast Range		
	No. of Units	Acres	Tons	No. of Units	Acres	Tons
1985	38	579	12,763	125	4,652	56,953
1986	91	1,494	42,809	62	1,504	17,573
1987	20	840	14,564	75	2,483	78,717
1988	11	178	7,107	71	1,921	53,153
1989	3	19	1,268	40	748	17,917
1990	3	50	1,736	48	1,349	39,975
1991	30	805	24,588	83	2,468	76,908
1992	1	32	1,260	1	1	120
1993	46	1,056	29,824	98	2,594	67,390
1994	0	0	0	10	428	9,921
1995	2	80	1,500	6	193	4,431
1996	0	0	0	9	665	14,568
1997	0	0	0	20	430	10,170
1998	23	372	12,418	17	652	9,158
1999	4	39	1,210	6	38	361
2000	0	0	0	0	0	0
2001	0	0	0	9	115	1572
2002	0	0	0	1	3	100
2003	0	0	0	2	4	59
2004	0	0	0	3	33	830
2005	2	23	636	6	31	542

Notes:

1. The Visibility Protection Period is defined to be from July 1 through September 15. Before 1992 the Visibility Protection Period was from July 4 through Labor Day.
2. The Cascade Range area includes the following districts and forests: Clackamas-Marion, East Lane, Linn, Mt. Hood NF, and the Willamette NF.

The Coast Range area includes the following districts and forests: Astoria, Forest Grove, Tillamook, West Oregon, West Lane, and the Siuslaw NF.

3. A change in tonnage consumption reporting was established in 1987. Prior year's data was adjusted to conform to the current procedure.
4. An exemption was granted to allow burning in the Cascade Range through July 16, 1993, due to wet conditions during the spring. During this period 930 acres were burned in the Cascade Range and 1,285 acres were burned in the Coast Range.
5. An exemption was granted to allow burning in the Cascade Range through July 23, 1998 due to extremely wet conditions during the spring. All Cascades burning was conducted during this exemption period.
6. An exemption was granted to allow burning in the Cascade Range Monday through Thursday from July 6 through July 22, 1999 due to a deep snow pack and late snow melt in the spring. All Cascades burning conducted during the visibility protection period occurred during this exemption window.

Figure 5

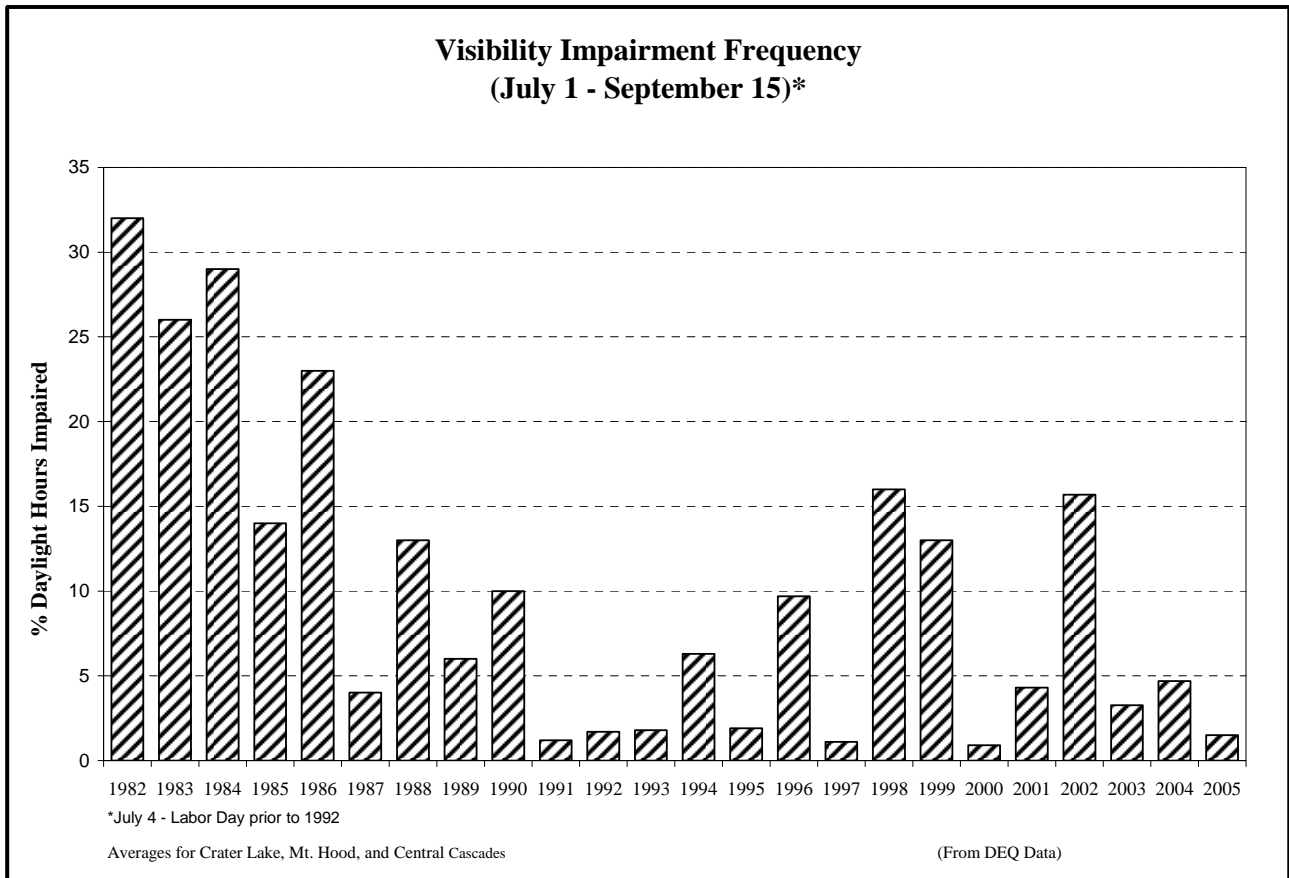


Figure 6

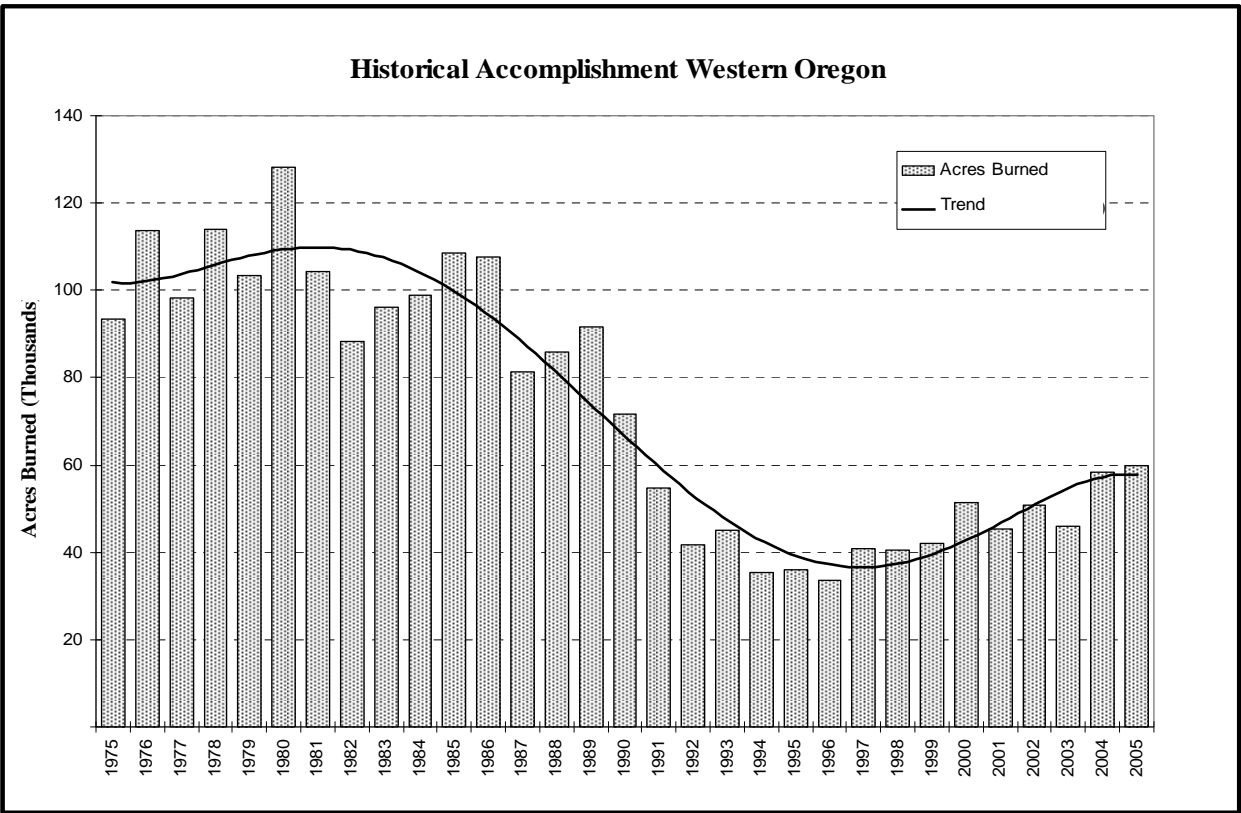


Figure 7

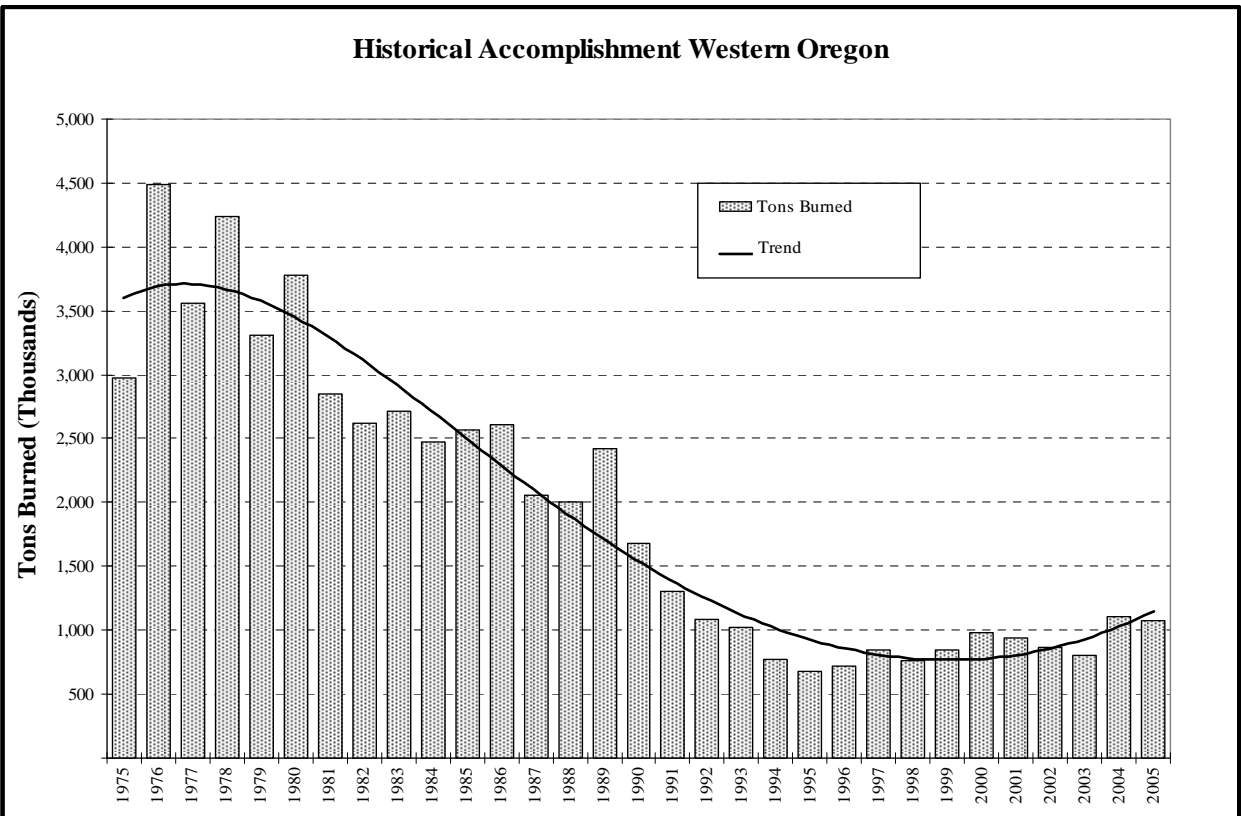


Figure 8

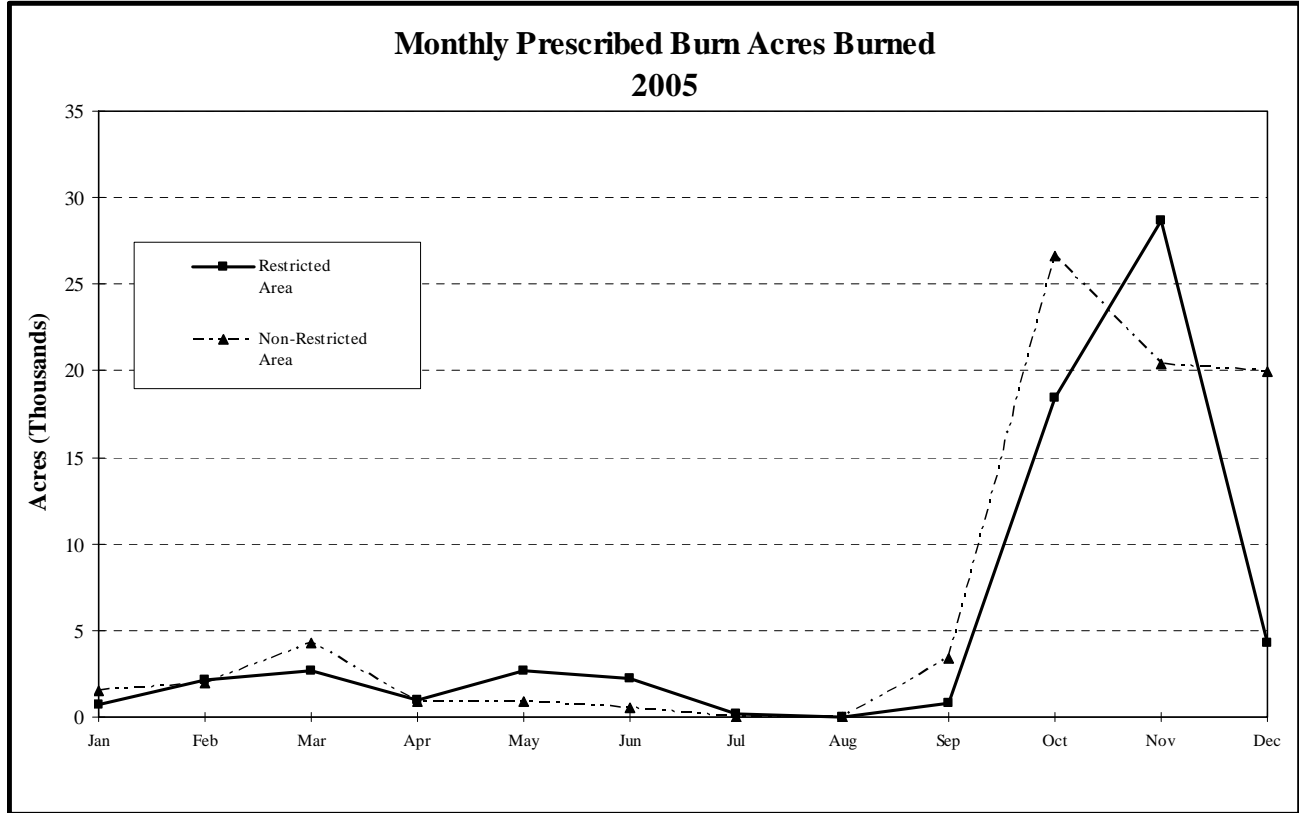


Figure 9

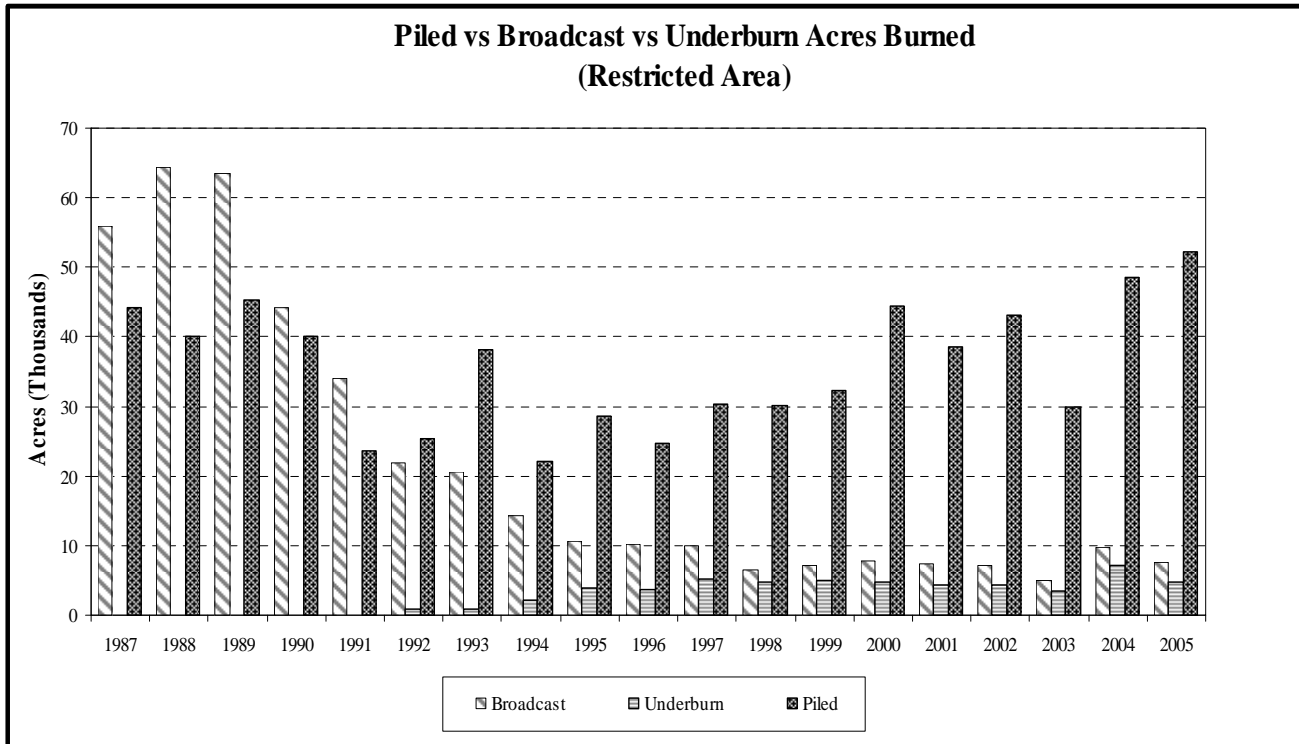


Figure 10

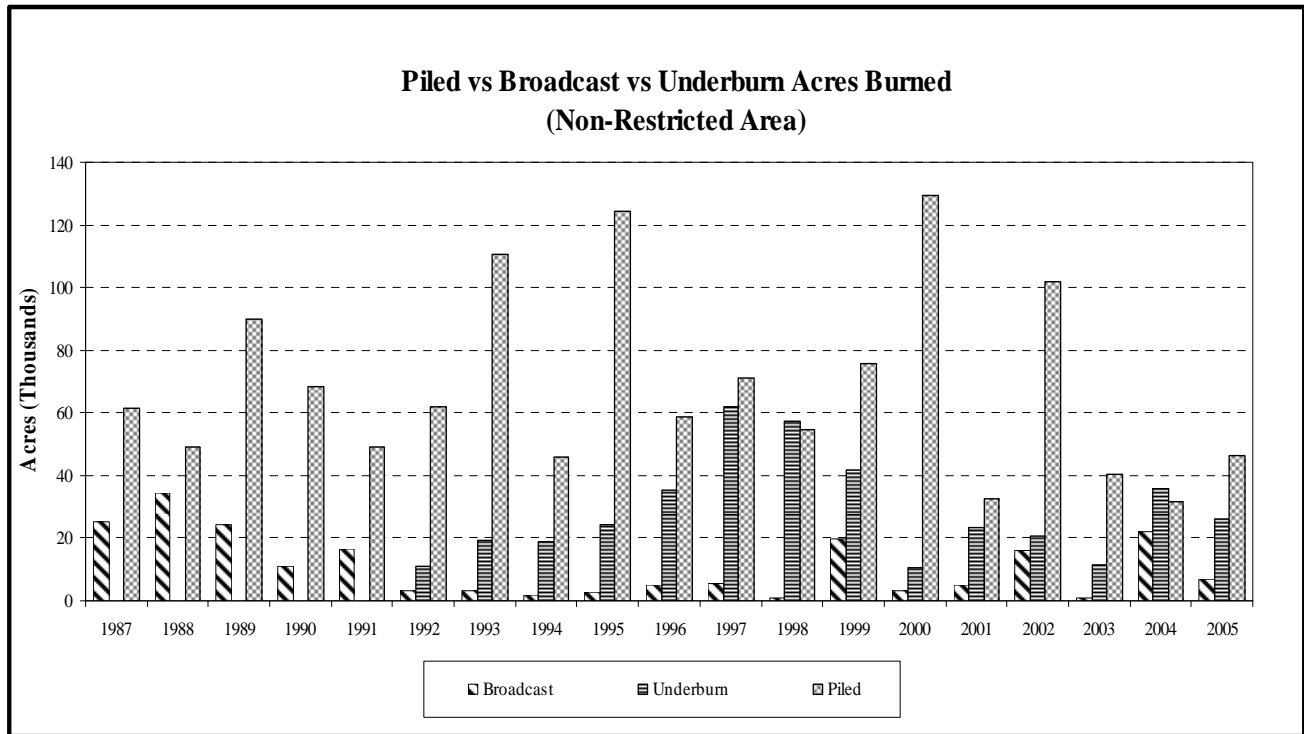


Table 5A
BURN SUMMARY BY DISTRICT -- 2005
(Restricted Area)

District/Forest	Units Burned	Acres Burned	Tons Burned
Astoria	69	2,640	47,981
Cascade	432	11,131	253,311
Coos FPA	447	5,660	209,816
Douglas FPA	210	3,817	70,312
Forest Grove	202	3,112	46,668
Southwest	382	12,495	113,254
Tillamook	72	1,701	23,869
West Lane	164	2,793	57,875
West Oregon	352	7,488	115,734
Deschutes NF	93	3,909	30,156
Klamath NF	1	51	100
Mt Hood NF	25	1,492	6,701
Rogue River NF	33	1,485	18,970
Siskiyou NF	89	3,224	76,571
Siuslaw NF	32	81	456
Umpqua NF	49	704	9,588
Willamette NF	134	1,886	24,661
TOTAL	2,786	63,669	1,106,023

Table 5B
BURN SUMMARY BY DISTRICT – 2005
(Non-Restricted Area)

District/Forest	Units Burned	Acres Burned	Tons Burned
Central Oregon	112	11,609	68,773
Klamath-Lake	63	14,345	157,227
Northeast	151	22,940	64,040
Walker Range	4	2,145	2,145
Crater Lake NP	0	0	0
Fremont NF	10	1,510	16,756
Malheur NF	49	6,826	48,845
Ochoco NF	8	746	8,850
Umatilla NF	13	3,447	62,974
Wallowa-Whitman NF	43	14,470	145,583
Winema NF	47	2,430	42,119
TOTAL	500	80,468	617,312

Table 6A
Tons Burned by Month by District
2005
(Restricted Area)

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total by District
Astoria										26,906	18,678	2,397	47,981
Cascade		32	1,215		994				53	120,322	120,528	10,167	253,311
Coos	2,095	3,596	18,177	5,508	12,500	12,080	1,272			63,662	79,331	11,595	209,816
Douglas	761		3,159		1,020				1,731	17,585	39,951	6,105	70,312
Forest Grove	2,639	300	1,566			270	60			23,265	13,742	4,826	46,668
Southwest	3,818	10,296	6,952	2,198	4,780	920				4,102	67,325	12,863	113,254
Tillamook		1,358	15			195	190			9,767	11,024	1,320	23,869
West Lane	44	2,882	3,447	39	1,821	2,925				19,105	26,787	825	57,875
West Oregon		2,875		35	225		199			52,033	54,452	5,915	115,734
Klamath NF											100		100
Mt Hood NF						3,960				549	2,192		6,701
Rogue River NF			825		4,000					11,820	2,325		18,970
Siskiyou NF	2,516	797	457	277	136					13,005	58,000	1,383	76,571
Siuslaw NF				4		10				442			456
Umpqua NF			2,122			530	2,102			3,564	1,270		9,588
Willamette NF			989			6,145	608		28	3,178	13,190	523	24,661
Deschutes NF	675	858	3,992		7,852	1,446			6,661	4,400	4,272		30,156
District Total	9,357	21,339	34,531	7,780	21,340	16,390	1,721	0	1,784	336,747	431,818	56,013	964,591
Forest Total	3,191	1655	8,385	281	11,988	12,091	2,710	0	6,689	36,958	81,349	1,906	167,203
Grand Total	12,548	22,994	42,916	8,061	33,328	28,481	4,431	0	8,473	373,705	513,167	57,919	1,106,023

Table 6B
Tons Burned by Month by District
2005
(Non-Restricted Area)

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total by District
Central Oregon	74	124	150	525	6				3,520	31,608	29,118	3,648	68,773
Klamath-Lake	30	2,455	2,824	375						101,446	50,097		157,227
Northeast	940									10,430	21,905	30,765	64,040
Walker Range												2,145	2,145
Crater Lake NP													0
Fremont NF	956				5,820					9,980			16,756
Malheur NF						10,524				29,791	8,084	446	48,845
Ochoco NF										8,850			8,850
Umatilla NF			40	1,268						61,666			62,974
Wallowa-Whitman NF			43,500		1,774					100,125	184		145,583
Winema NF			2,060		1,105	2,640				27,779	8,535		42,119
District Total	1044	2,579	2,974	900	6	0	0	0	3,520	143,484	101,120	36,558	292,185
Forest Total	956	0	45,600	1,268	8,699	13,164	0	0	0	238,191	16,803	446	325,127
Grand Total	2000	2,579	48,574	2,168	8,705	13,164	0	0	3,520	381,675	117,923	37,004	617,312

Table 7A
Acres Burned by Month by District
2005
(Restricted Area)

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total by District
Astoria										1,728	801	111	2,640
Cascade		6	57		84	94			12	4,772	5,292	814	11,131
Coos	65	149	539	202	547	503	38			1,773	1,551	293	5,660
Douglas	50		128		85				577	754	1,915	308	3,817
Forest Grove	112	112	110			30	13			1,105	1,207	423	3,112
Southwest	285	1,235	1,233	696	651	23				547	6,407	1,418	12,495
Tillamook		60	2			14	13			850	606	156	1701
West Lane	4	221	118	1	152	125				854	1,200	118	2,793
West Oregon		200		1	15		15			3,729	3,071	457	7,488
Klamath NF											51		51
Mt Hood NF						1,017				59	416		1,492
Rogue River			100		445					788	152		1,485
Siskiyou NF	109	128	16	14	17					1,546	1,326	68	3,224
Siuslaw NF				2		2				77			81
Umpqua NF			223			28	73			345	35		704
Willamette NF			23			161	19		4	397	1,244	38	1,886
Deschutes NF	75	163	247		523	183			238	923	1,557		3,909
District Total	516	1,983	2,187	900	1,534	789	79	0	589	16,112	22,050	4,098	50,837
Forest Total	184	291	609	16	985	1,391	92	0	242	4,135	4,781	106	12,832
Grand Total	700	2,274	2,796	916	2,519	2,180	171	0	831	20,247	26,831	4,204	63,669

Table 7B
Acres Burned by Month by District
2005
(Non-Restricted Area)

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total by District
Central Oregon	1,470	885	89	150	1				3,360	1,597	2,237	1,820	11,609
Klamath-Lake	10	1,405	1,046	355						2,557	8,972		14,345
Northeast	389									1,197	5,461	15,893	22,940
Walker Range												2,145	2,145
Crater Lake NP													0
Fremont NF	25				522						963		1,510
Malheur NF						1,258				4,330	1,145	93	6,826
Ochoco NF										746			746
Umatilla NF			40	42						3,365			3,447
Wallowa-Whitman NF			3,500		304					10,573	93		14,470
Winema NF			91		85	160				1,213	881		2,430
District Total	1,869	2,290	1,135	505	1	0	0	0	3,360	5,351	16,670	19,858	51,039
Forest Total	25	0	3,631	42	911	1,418	0	0	0	20,227	3,082	93	29,429
Grand Total	1,894	2,290	4,766	547	912	1,418	0	0	3,360	25,578	19,752	19,951	80,468

TABLE 8A
TONS BURNED BY MONTH WITHIN COUNTY
2005
(Restricted Area)

County	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Benton	0	0	0	0	0	0	0	0	0	14383	15266	970	30,619
Clackamas	0	0	1215	0	994	0	0	0	0	2687	6533	4610	16,039
Clatsop	0	0	0	0	0	0	0	0	0	26906	19128	2397	48,431
Columbia	0	265	1139	0	0	0	0	0	0	11261	3261	874	16,800
Coos	153	3380	5711	1339	6014	9709	1272	0	0	35033	52834	8275	123,720
Curry	0	0	2792	4408	3046	0	0	0	0	25904	31426	2851	70,427
Deschutes	675	858	3992	0	2784	264	0	0	0	4174	2646	0	15,393
Douglas	2703	216	15294	321	5960	2448	0	0	1731	42344	54680	6979	132,676
Hood River	0	0	0	0	0	0	0	0	0	8	584	0	592
Jackson	1989	8188	3782	1787	3087	0	0	0	0	8570	46101	6702	80,206
Jefferson	0	0	0	0	2215	0	0	0	0	0	1550	0	3,765
Josephine	4345	2905	4075	132	4329	920	0	0	0	2880	66901	7523	94,010
Klamath	0	0	0	0	0	0	0	0	6661	226	12	0	6,899
Lake	0	0	0	0	2853	1182	0	0	0	0	64	0	4,099
Lane	44	2882	4474	39	1821	8227	2710	0	28	25239	101609	2488	149,561
Lincoln	0	82	0	0	0	0	159	0	0	11442	23581	4430	39,694
Linn	0	32	0	0	0	1306	0	0	53	96023	44386	1858	143,658
Marion	0	0	0	0	0	0	0	0	0	18132	2530	75	20,737
Multnomah	0	0	0	0	0	0	0	0	0	120	2200	2446	4,766
Polk	0	2793	0	35	50	0	40	0	0	21850	12425	515	37,708
Tillamook	1600	1358	15	0	175	465	190	0	0	12175	13701	1320	30,999
Wasco	0	0	0	0	0	3960	0	0	0	254	1215	0	5,429
Washington	1039	35	427	0	0	0	0	0	0	4505	2459	2039	10,504
Yamhill	0	0	0	0	0	0	60	0	0	9589	8075	1567	19,291
TOTAL	12,548	22,994	42,916	8,061	33,328	28,481	4,431	0	8,473	373,705	513,167	57,919	1,106,023

TABLE 8B

**TONS BURNED BY MONTH WITHIN COUNTY
2005
(Non-Restricted Area)**

County	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baker	0	0	0	0	1774	0	0	0	0	21569	184	1609	25,136
Crook	56	30	10	0	0	0	0	0	0	8850	0	783	9,729
Deschutes	18	10	0	525	0	0	0	0	0	0	0	1778	2,331
Grant	0	0	0	0	0	7524	0	0	0	18299	5019	446	31,288
Harney	0	0	0	0	0	3000	0	0	3520	23154	3074	0	32,748
Hood River	0	84	0	0	6	0	0	0	0	27369	26011	80	53,550
Jefferson	0	0	0	0	0	0	0	0	0	0	0	927	927
Klamath	30	1455	4884	375	6925	2640	0	0	0	130624	50086	2145	199,164
Lake	956	1000	0	0	0	0	0	0	0	8581	8546	0	19,083
Morrow	0	0	0	0	0	0	0	0	0	138	1530	0	1,668
Umatilla	940	0	40	0	0	0	0	0	0	59480	19675	542	80,677
Union	0	0	4350 0	0	0	0	0	0	0	43513	700	4943	92,656
Wallowa	0	0	0	1268	0	0	0	0	0	38793	0	23671	63,732
Wasco	0	0	140	0	0	0	0	0	0	1305	3098	80	4,623
Wheeler	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2,000	2,579	48,574	2,168	8,705	13,164	0	0	3,520	381,675	117,923	37,004	617,312

Table 9A
Burn Data by Owner Type
2005
(Restricted Area)

District/ Forest	Private			State			Federal (Except USFS)			USFS		
	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons
Astoria	52	1,934	43,020	17	706	4,961	0	0	0			
Cascade	409	10,575	247,826	8	441	2,880	15	115	2,605			
Coos FPA	414	5,383	201,105	25	219	7,138	8	58	1,573			
Douglas FPA	189	3,158	66,963	1	2	20	20	657	3,329			
Forest Grove	200	3,071	45,256	2	41	1,412	0	0	0			
Southwest	177	3,478	42,024	1	1	21	204	9,016	71,209			
Tillamook	53	1,505	20,850	19	196	3,019	0	0	0			
West Lane	163	2,785	57,641	0	0	0	1	8	234			
West Oregon	329	7,299	113,667	10	95	834	13	94	1,233			
Klamath NF										1	51	100
Mt Hood NF										25	1,492	6,701
Rogue River NF										33	1,485	18,970
Siskiyou NF										89	3,224	76,571
Siuslaw NF										32	81	456
Umpqua NF										49	704	9,588
Willamette NF										134	1,886	24,661
Deschutes NF										93	3,909	30,156
Totals	1,986	39,188	838,352	83	1,701	20,285	261	9,948	80,183	456	12,832	167,203

Table 9B
Burn Data by Owner Type
2005
(Non-Restricted Area)

District/ Forest	Private			State			Federal (Except USFS)			USFS		
	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons
Central Oregon	83	6,906	22,155	21	604	40,155	8	4,099	6,463			
Klamath-Lake	40	8,606	42,906	8	276	10,350	15	5,463	103,971			
Northeast	150	22,690	60,290	0	0	0	1	250	3,750			
Walker Range	4	2,145	2,145	0	0	0	0	0	0			
Crater Lake NP							0	0	0			
Fremont NF										10	1,510	16,756
Malheur NF										49	6,826	48,845
Ochoco NF										8	746	8,850
Umatilla NF										13	3,447	62,974
Wallowa-Whitman NF										43	14,470	145,583
Winema NF										47	2,430	42,119
TOTALS	277	40,347	127,496	29	880	50,505	24	9,812	114,184	170	29,429	325,127

Figure 11

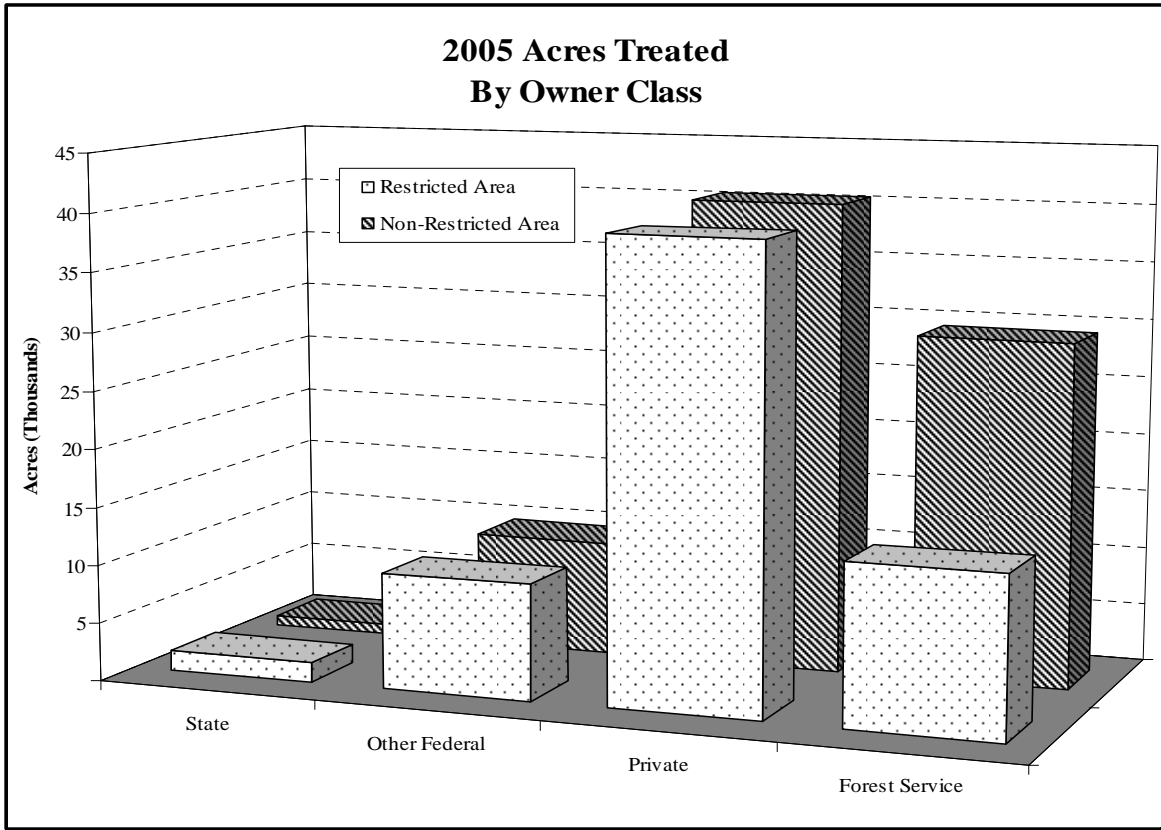


Figure 12A

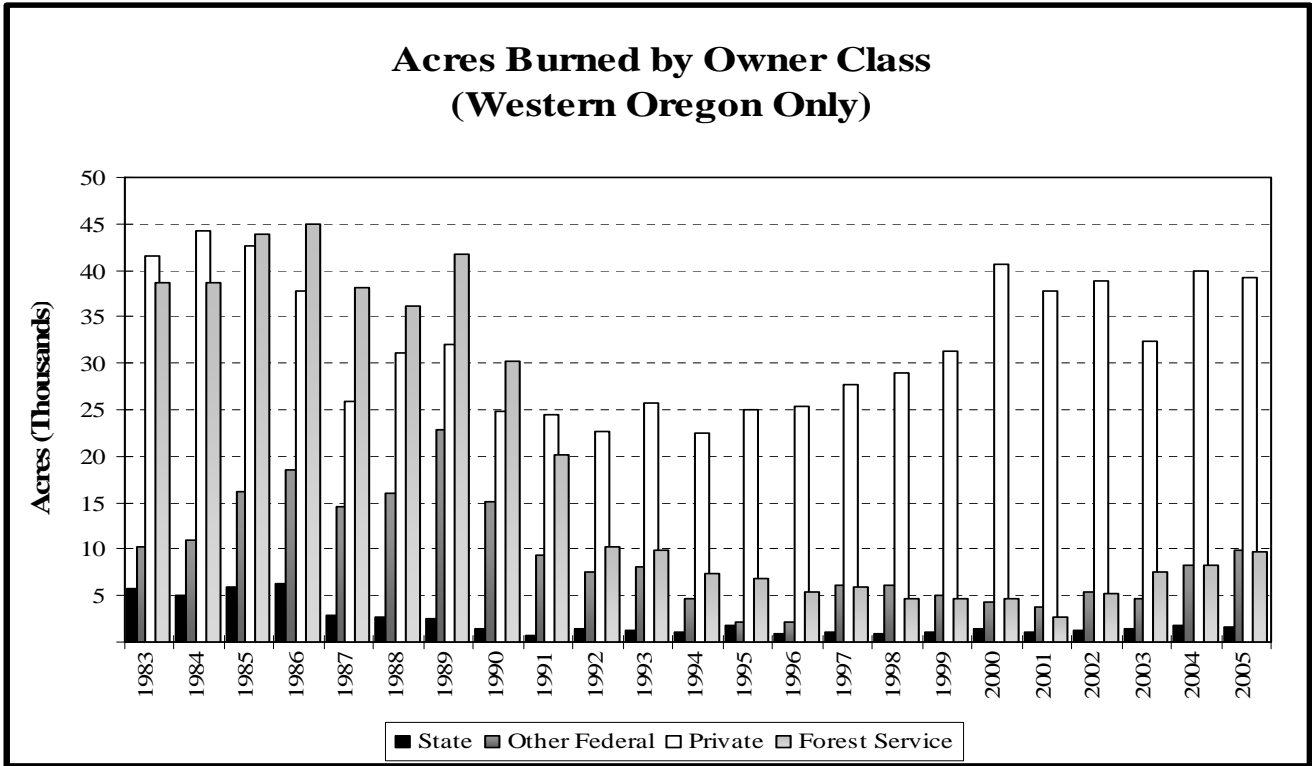


Figure 12B

Tons Burned by Owner Class (Western Oregon Only)

