

# Oregon Smoke Management Annual Report

2006



*"STEWARDSHIP IN FORESTRY"*

OREGON DEPARTMENT OF FORESTRY  
FIRE PROTECTION DIVISION  
SMOKE MANAGEMENT AND FUELS

**OREGON SMOKE MANAGEMENT**  
**ANNUAL REPORT**  
**2006**

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(Annual Report available online at <http://oregon.gov/ODF/FIRE/SMP/SMR2006.pdf>)

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# OREGON DEPARTMENT OF FORESTRY

## SMOKE MANAGEMENT 2006 ANNUAL REPORT

### 2006 SUMMARY

- **Acres burned** – In western Oregon 58,798 acres were burned and 86,460 acres were burned in eastern Oregon. Acres treated in western Oregon were nearly 9 percent above average while eastern Oregon burning was more than 21 percent below average.
- **Intrusions** – There were six smoke intrusions into designated areas and three intrusions into eastside protected areas.
- **Smoke impact** – About 17 hours of smoke impact into designated areas were recorded. Five impacts were light and one was moderate.
- **Emissions** -- Emissions were just less than 19,000 tons of PM 2.5, which is about average for the last 11 year period.
- **Visibility** – Visibility impairment of the Class 1 wilderness areas increased significantly this year due to wildfire, contributing 17 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. Fifteen pre-burn audits were desired and five were completed. Burn day audits were conducted on the day the units were burned. The auditors randomly selected units for burn day audits. Fourteen burn day audits were desired and five 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. Two of the units audited were significantly different in reported tonnage burned vs. audited tonnage. One unit the reported tonnage was much larger than the audited tonnage while another unit the audited tonnage was much larger than the reported 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. Two warnings were issued in 2006.

**PROGRAM ACCOMPLISHMENT**  
**DATA**

The following tables and figures provide detailed information of the smoke management program. The data details accomplishments for 2006 and comparative information with previous years.

Figure 1A

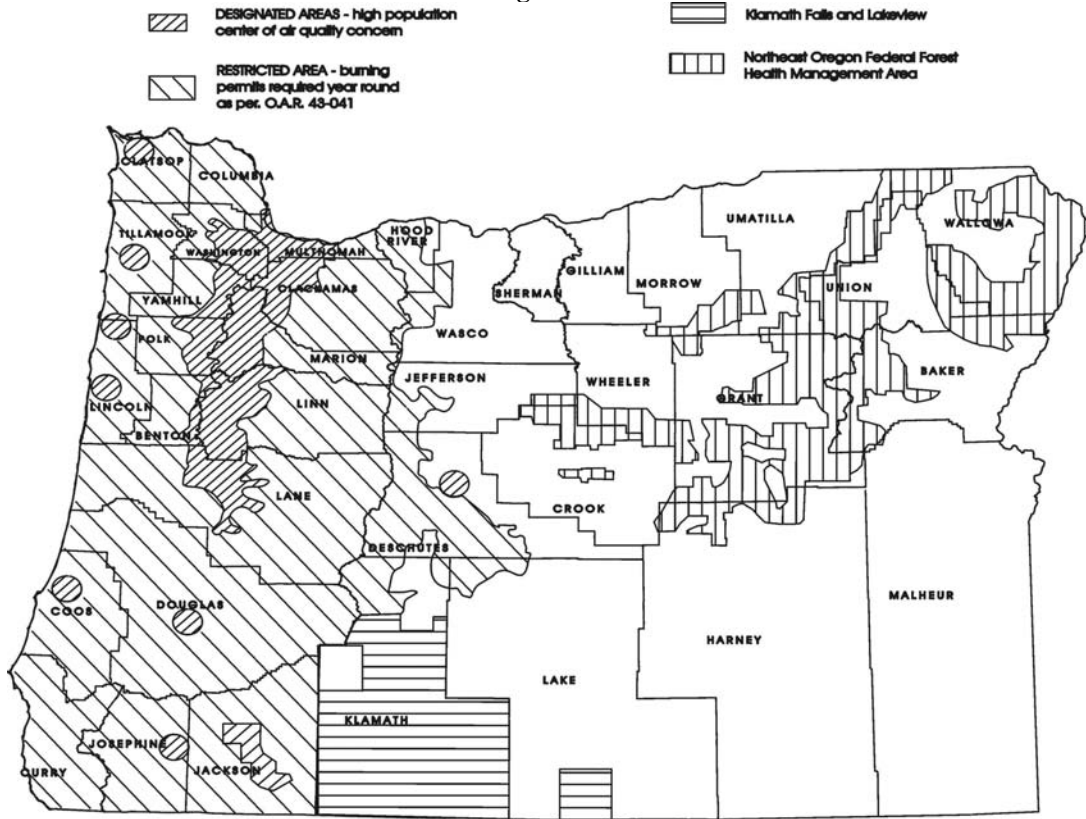
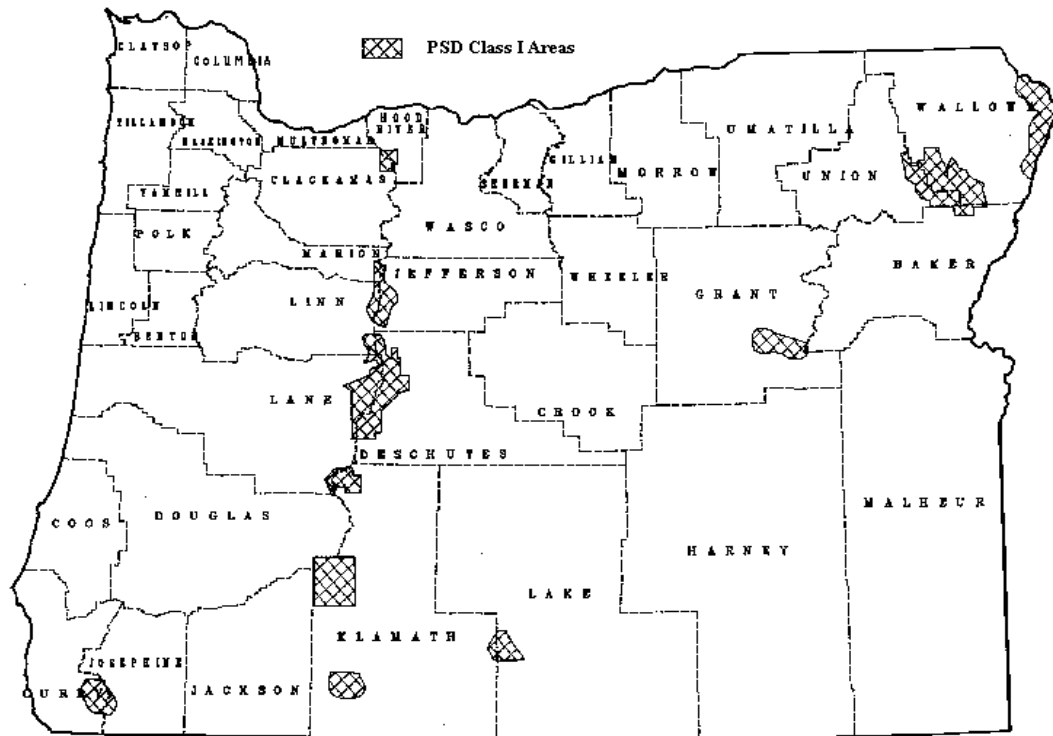


Figure 1B



**TABLE 1**  
**1997-2006 ACCOMPLISHMENT SUMMARY**

Burning totals within the restricted area:

<b>Year</b>	<b>Total No. Units</b>	<b>No. Units Burned</b>	<b>Acres Burned</b>	<b>Tons Burned</b>	<b>No. Intrusions</b>
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
2006	3,496	2,995	58,798	1,262,284	6
<b>Average</b>	<b>3,432</b>	<b>2,553</b>	<b>53,950</b>	<b>975,493</b>	<b>5</b>

Burning totals outside of the restricted area:

<b>Year</b>	<b>Total No. Units</b>	<b>No. Units Burned</b>	<b>Acres Burned</b>	<b>Tons Burned</b>
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
2006	708	570	86,460	704,918
<b>Average</b>	<b>1,174</b>	<b>693</b>	<b>110,468</b>	<b>801,962</b>

Figure 2A

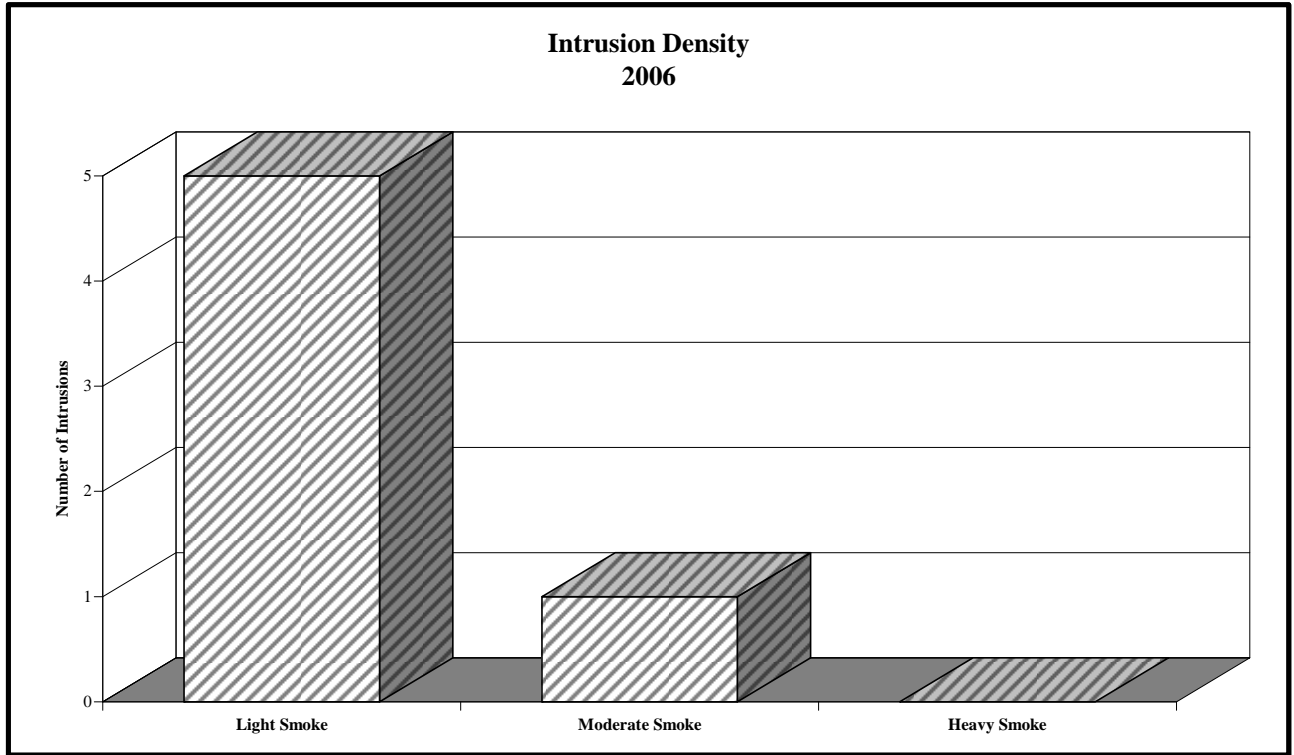


Figure 2B

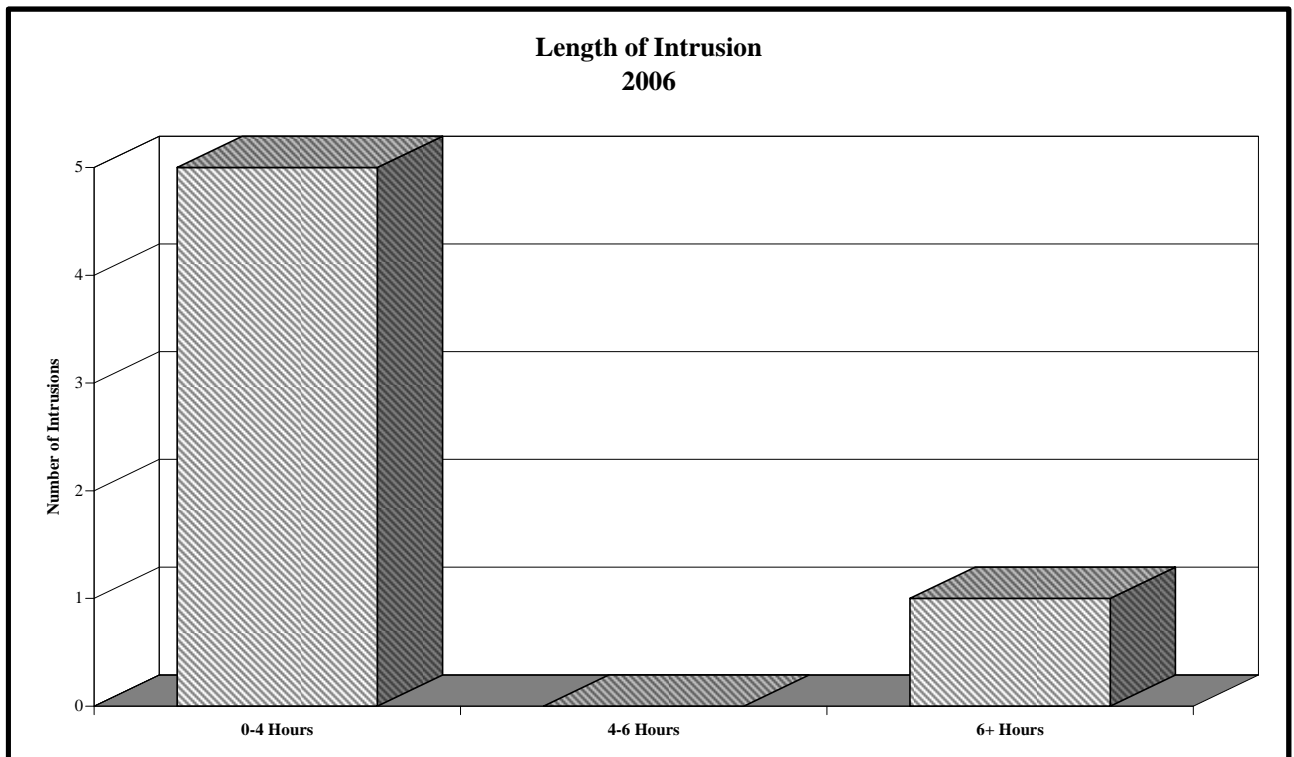


Figure 3A

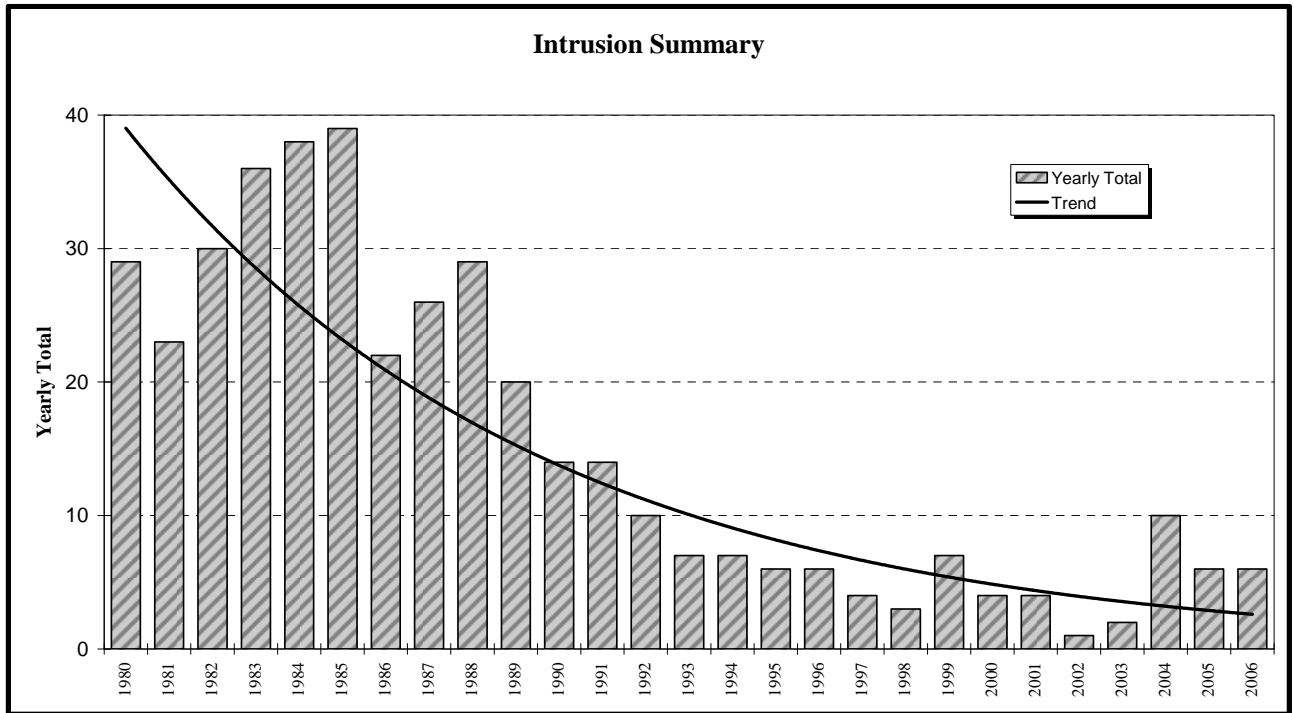
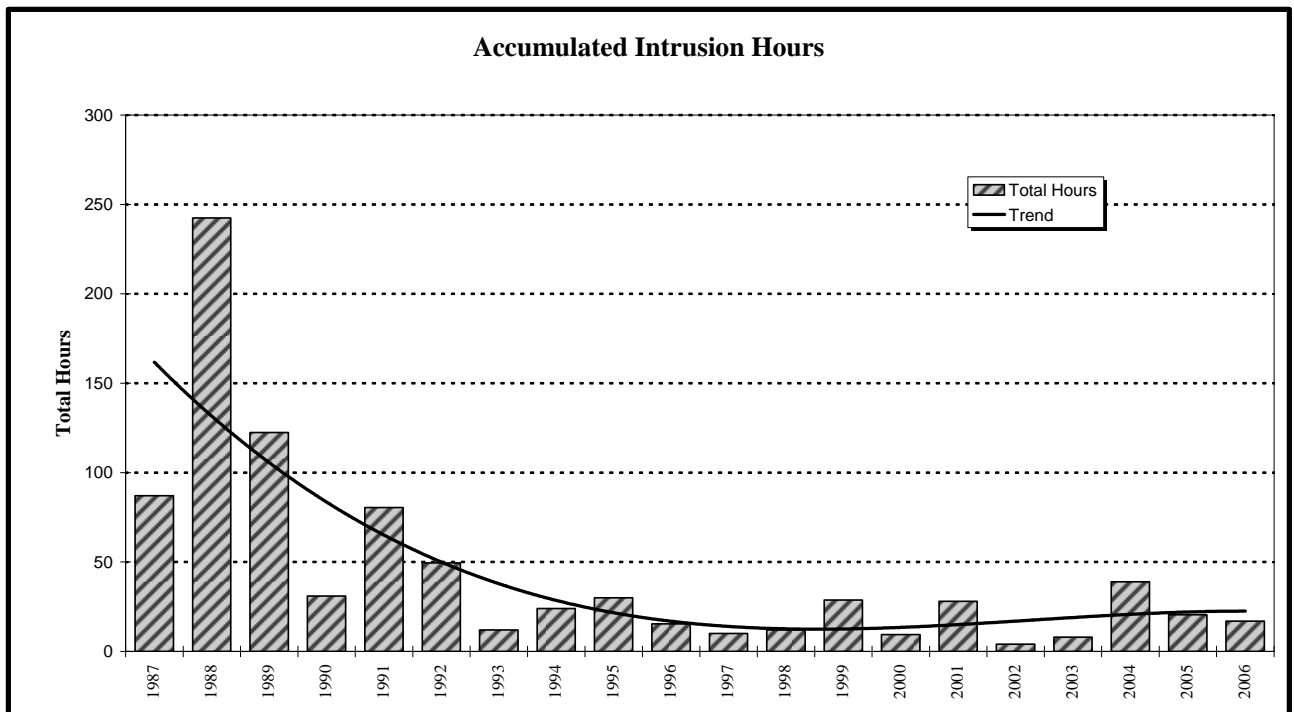


Figure 3B



**TABLE 2A  
SMOKE INTRUSION SUMMARY – 2006**

Restricted Area

<b>Date</b>	<b>District/ Forest</b>	<b>Primary Area Affected</b>	<b>Unit No.</b>	<b>Owner Class</b>	<b>Intensity</b>	<b>Length</b>
Apr 20	West Lane	Veneta/Eugene	05-781-50083-00	Private	Light	.5
Apr 24	West Lane	South Willamette Valley	04-781-51347-00	Private	Light	4
May 5	West Lane	Eugene	04-781-51124-01	Private	Light	1
Oct 12- 13	Deschutes NF	Bend	06-406-10216-18	USFS	Moderate	7
Nov 2	West Oregon	Newport	06-553-37316-00	Private	Light	.5
Nov 28	West Lane	Eugene	06-781-50797-00	Private	Light	4

**TABLE 2B  
PROTECTED AREA SMOKE INTRUSION SUMMARY –2006**

Non-Restricted Area

<b>Date</b>	<b>Forest</b>	<b>Area Affected</b>	<b>Owner Class</b>	<b>Intensity</b>	<b>Length</b>
Sep. 26-28	Wallowa- Whitman NF	La Grande	USFS	Heavy	33+ hours
Oct. 13	Malheur NF	Burns	USFS	Heavy	6 hours
Oct. 30-31	Wallow- Whitman NF	Baker City	USFS	Moderate	13 hours

Figure 4

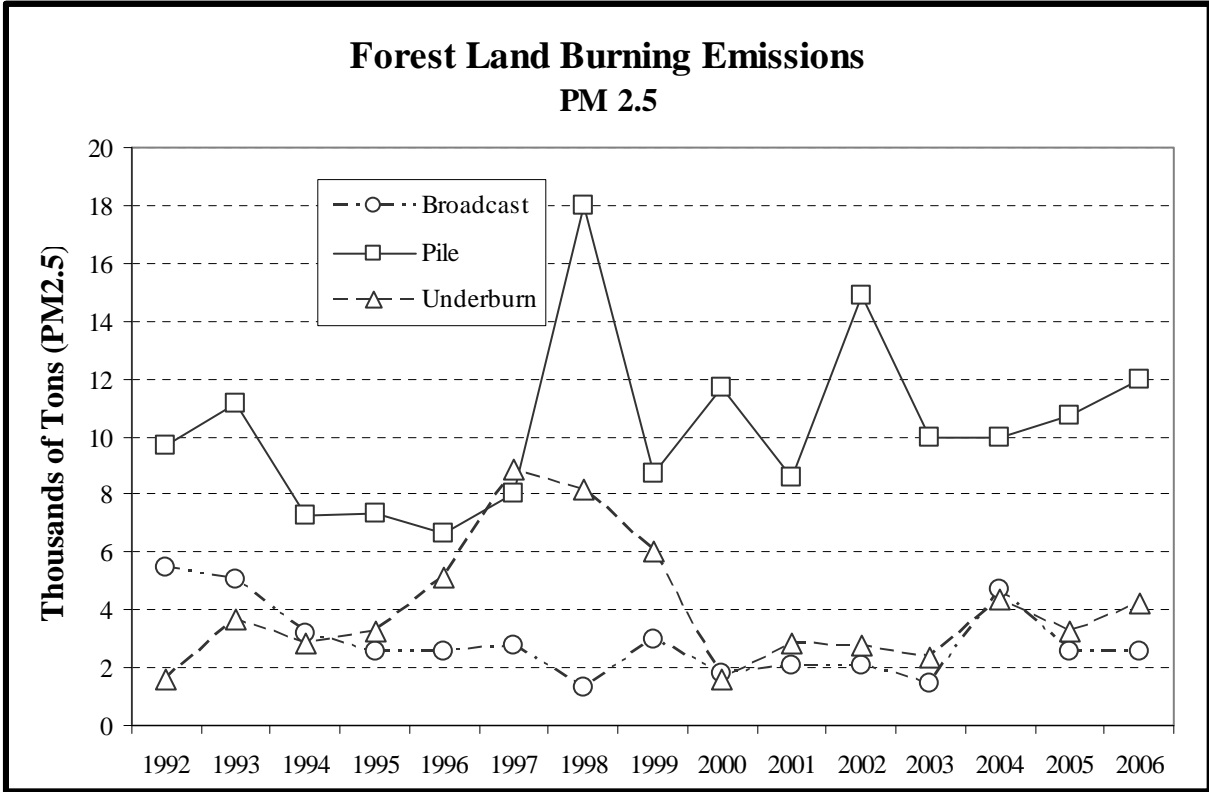


Table 3A

	PM 2.5 Emissions (Tons) Broadcast											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Astoria	37	15	9	6	1	0	0	0	0	0	0	
Central Oregon	0	0	0	0	296	0	508	235	2246	301	585	
Clackamas-Marion	48	43	77	19	98	19	0	0	0	0	0	
Coos FPA	527	633	464	758	748	764	583	369	1066	666	704	
Crater Lake NP	0	0	0	0	0	0	0	0	0	0	0	
Deschutes NF	14	5	0	1	1	1	1	0	34	93	26	
Douglas FPA	93	249	55	86	137	140	88	58	131	96	50	
Eastern Lane	5	26	0	0	32	3	0	0	0	0	0	
Forest Grove	42	35	51	31	33	22	14	24	25	3	14	
Fremont NF	0	0	0	0	0	54	11	0	0	0	290	
Klamath NF	8	18	0	0	0	0	0	0	0	0	0	
Klamath-Lake	66	410	0	1549	0	502	0	102	0	1065	0	
Linn	0	46	27	9	4	4	0	0	0	0	0	
Malheur NF	251	118	61	149	0	69	11	117	94	0	117	
Mt. Hood NF	17	13	0	0	0	0	0	39	147	29	0	
North Cascade							4	169	4	0	0	
Northeast Oregon	0	0	0	0	0	0	11	51	0	0	0	
Ochoco NF	27	101	3	9	12	24	82	6	17	0	0	
Rogue River NF	0	0	0	18	0	9	0	0	0	0	0	
Siskiyou NF	56	108	37	21	32	0	0	0	138	9	28	
Siuslaw NF	44	4	59	6	0	0	18	3	2	0	1	
South Cascade							22	0	26	0	460	
Southwest Oregon	49	59	41	85	17	87	3	2	25	103	16	
Tillamook	6	0	0	4	0	0	0	0	1	0	0	
Umatilla NF	264	129	23	52	2	51	83	0	258	0	47	
Umpqua NF	97	60	1	0	1	12	36	4	7	0	0	
Walker Range	0	0	0	0	0	0	0	0	0	0	0	
Wallowa-Whitman NF	14	169	3	10	29	43	165	11	15	52	0	
West Oregon	508	259	236	97	254	165	265	190	242	55	123	
Western Lane	49	133	70	75	106	72	143	105	200	98	99	
Willamette NF	370	109	65	17	3	0	4	0	8	1	34	
Winema NF	0	0	0	0	0	7	0	0	0	7	0	
	2592	2742	1282	3002	1806	2048	2052	1485	4686	2578	2594	

**Table 3B**

<b>PM 2.5 Emissions (Tons) Pile</b>											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Astoria	121	427	355	486	261	539	325	435	407	525	279
Central Oregon	710	523	11264	651	503	312	522	164	303	216	120
Clackamas-Marion	55	154	53	208	387	446	0	0	0	0	0
Coos FPA	905	880	1023	945	1146	1152	1078	1290	1294	1338	1488
Crater Lake NP	0	0	0	0	0	0	0	0	0	0	0
Deschutes NF	272	126	132	140	268	106	92	42	71	39	1140
Douglas FPA	298	262	322	381	353	537	443	606	841	520	936
Eastern Lane	621	694	734	920	727	528	0	0	0	0	0
Forest Grove	374	326	415	336	535	640	612	590	742	520	474
Fremont NF	0	8	0	0	1	0	1	0	6	8	0
Klamath NF	0	0	0	0	0	0	0	0	0	0	0
Klamath-Lake	202	50	322	150	478	34	542	1939	641	652	484
Linn	495	677	597	829	1233	1169	0	0	0	0	0
Malheur NF	137	116	184	103	76	24	189	43	174	63	268
Mt. Hood NF	42	21	97	42	196	3	210	1	22	27	15
North Cascade							233	67	497	248	408
Northeast Oregon	188	1488	144	397	581	368	471	230	124	518	518
Ochoco NF	217	98	170	286	130	7	10	3	0	0	0
Rogue River NF	24	95	49	53	39	2	150	123	194	141	100
Siskiyou NF	12	138	8	29	23	32	25	43	309	478	173
Siuslaw NF	3	0	1	9	8	0	3	2	1	4	9
South Cascade							1847	1368	1647	2367	1533
Southwest Oregon	70	271	302	333	461	268	399	480	683	812	1012
Tillamook	92	66	20	122	115	84	73	137	184	248	225
Umatilla NF	0	0	0	9	11	10	50	4	16	2	0
Umpqua NF	16	47	78	68	27	93	19	8	56	39	46
Walker Range	524	42	43	340	1559	107	448	504	13	25	743
Wallowa-Whitman NF	25	14	71	164	159	83	171	35	69	3	18
West Oregon	686	679	834	1127	1128	1053	1038	1106	1023	1160	1260
Western Lane	313	510	517	464	757	625	316	513	412	499	559
Willamette NF	92	148	214	120	121	26	61	63	60	144	96
Winema NF	142	169	35	15	388	323	145	165	156	99	76
Total	6636	8029	17984	8727	11671	8571	9470	9961	9945	10695	11980

**Table 3C**

<b>PM 2.5 Emissions (Tons) Underburn</b>											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Astoria	0	0	0	0	0	0	0	0	0	0	0
Central Oregon	0	3	46	74	0	30	36	0	0	8	148
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	22	0	0	0	0
Deschutes NF	281	389	420	287	104	283	105	178	323	178	233
Douglas FPA	0	0	0	0	0	0	1	0	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	2023	1007	2224	2293	78	501	586	483	1341	171	590
Klamath NF	2	25	27	0	0	0	0	0	0	0	0
Klamath-Lake	159	396	1797	1053	0	129	0	20	0	11	123
Linn	0	0	0	0	0	0	0	0	0	0	0
Malheur NF	972	2522	1071	1021	11	356	251	265	851	405	67
Mt. Hood NF	104	92	10	102	3	4	0	0	31	8	36
North Cascade							0	0	0	0	9
Northeast Oregon	0	0	0	0	0	0	0	0	0	35	11
Ochoco NF	473	1314	771	409	330	412	306	0	218	95	46
Rogue River NF	40	52	48	35	11	12	42	117	5	24	18
Siskiyou NF	16	58	6	14	71	8	62	6	20	1	2
Siuslaw NF	0	0	0	0	0	0	0	0	0	0	0
South Cascade							0	0	0	0	0
Southwest Oregon	6	38	54	42	123	103	178	95	97	109	122
Tillamook	0	0	0	0	0	0	0	0	0	0	0
Umatilla NF	498	1504	766	296	394	59	293	144	168	358	850
Umpqua NF	99	130	150	48	83	155	140	17	92	58	489
Walker Range	0	0	0	0	0	0	0	0	0	0	0
Wallowa-Whitman NF	408	1015	553	251	313	561	557	901	1011	1391	996
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	1	26	38	76	67	91	28	67	40	61	138
Winema NF	26	267	185	29	18	138	130	80	180	355	362
Total	5108	8838	8166	6030	1606	2842	2736	2373	4377	3268	4240

**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
2006	1	15	570	1	3	56

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: North Cascade, South Cascade, 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

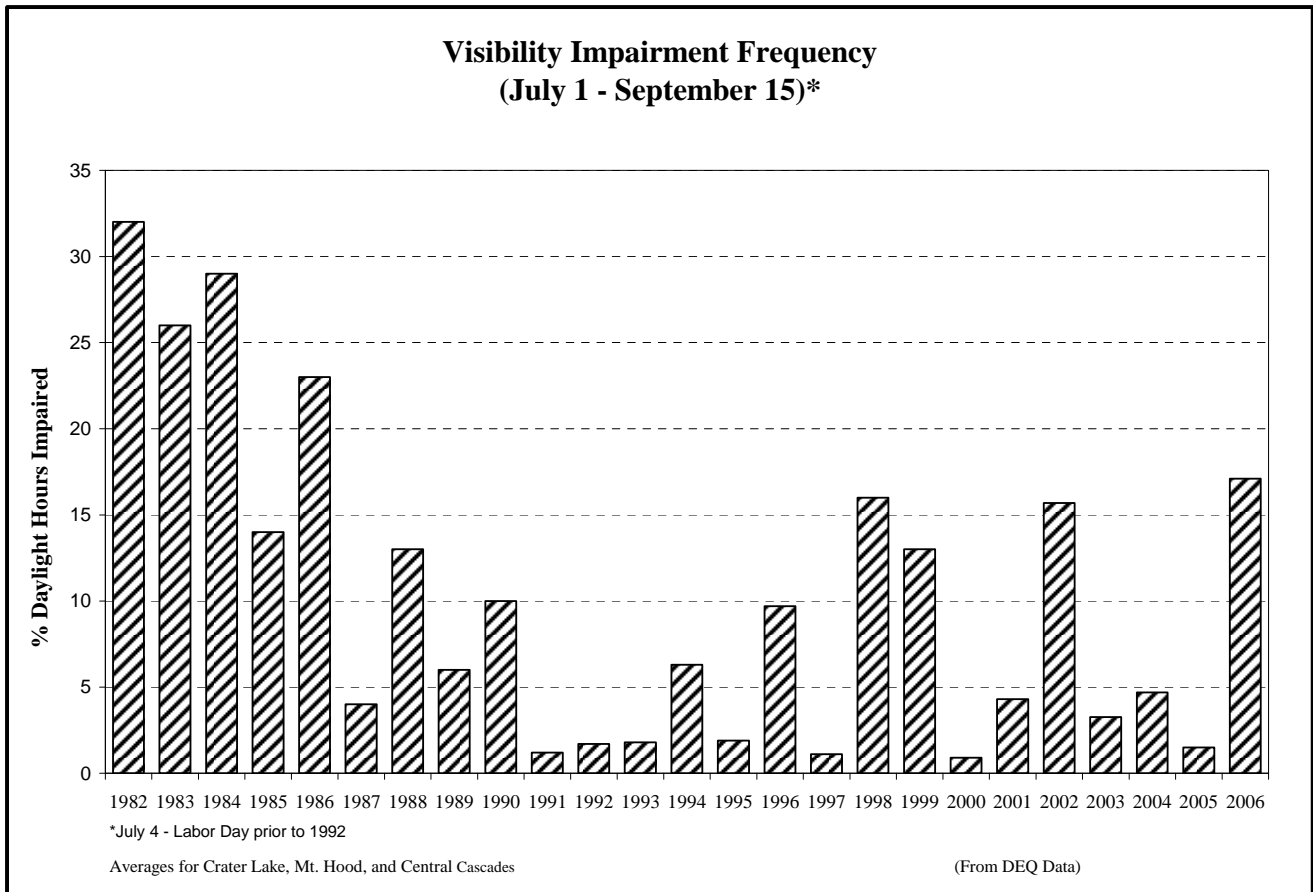


Figure 6

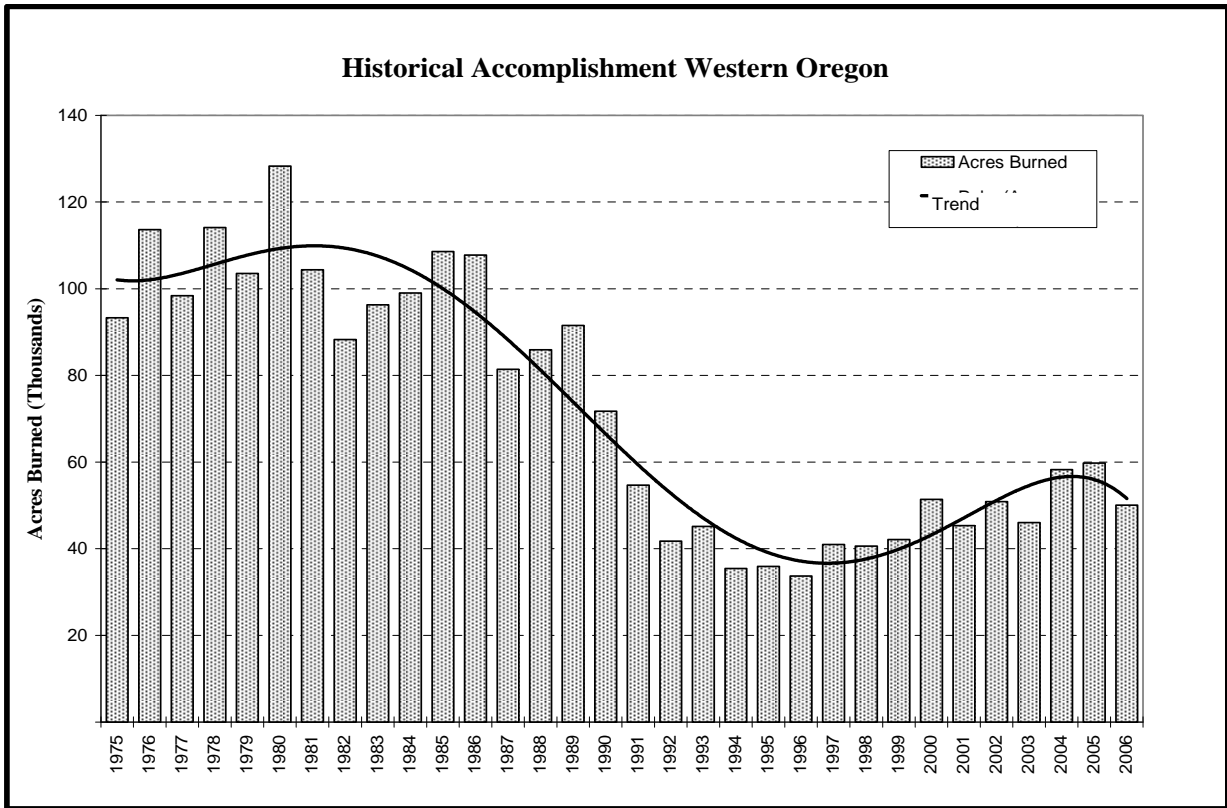


Figure 7

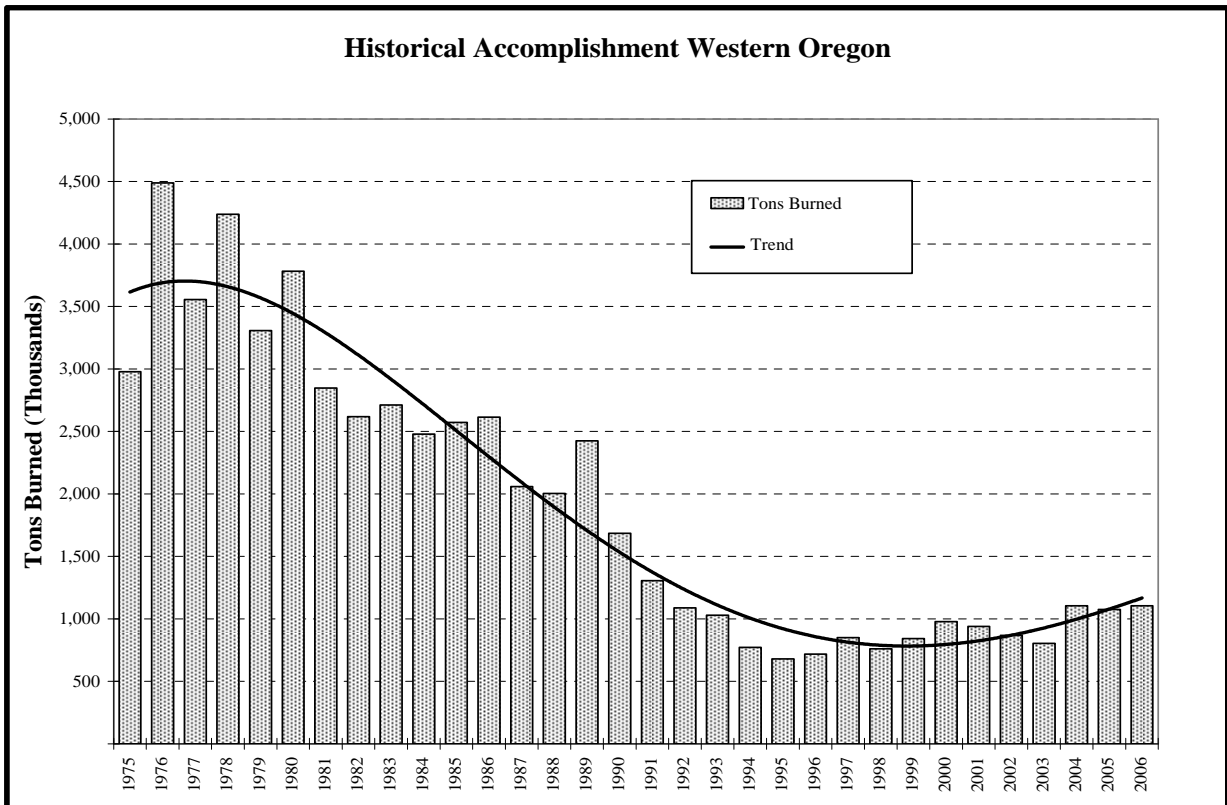


Figure 8

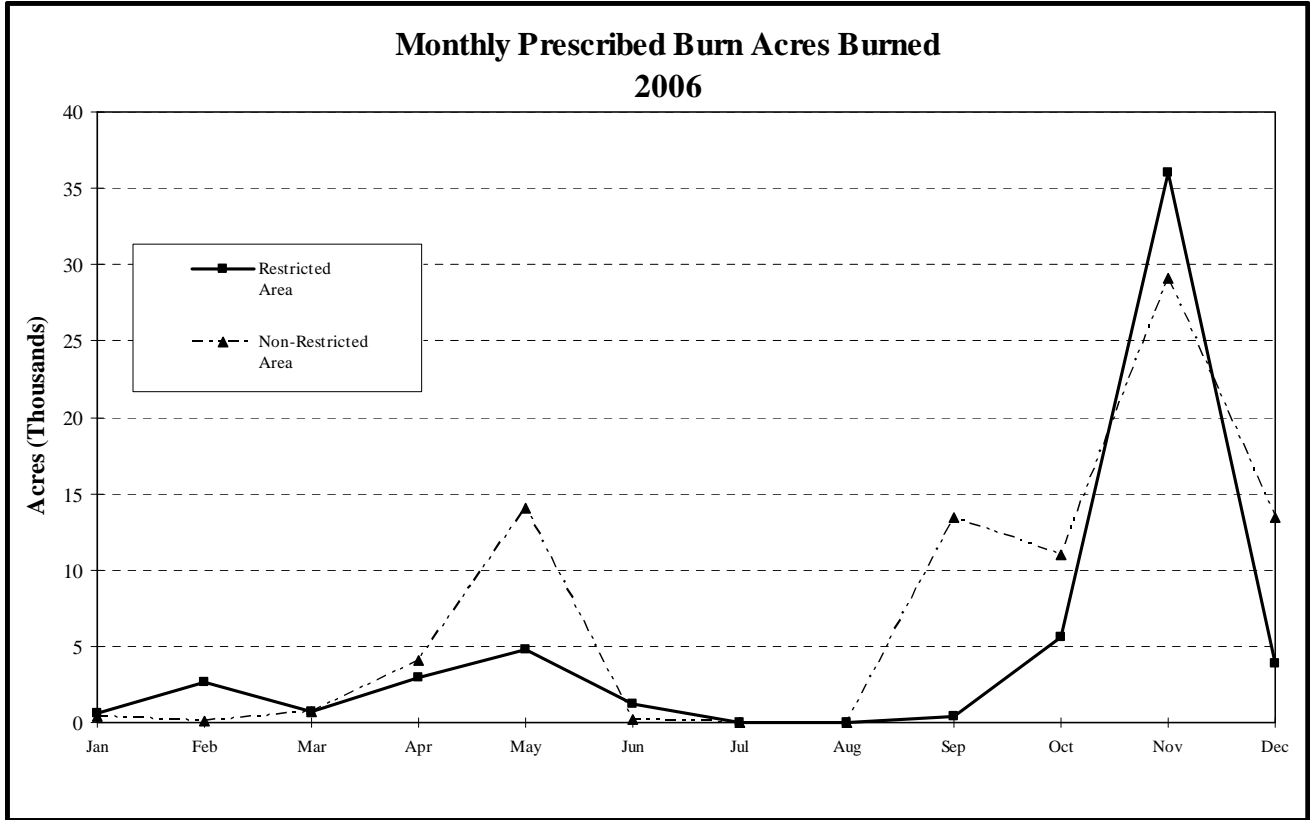


Figure 9

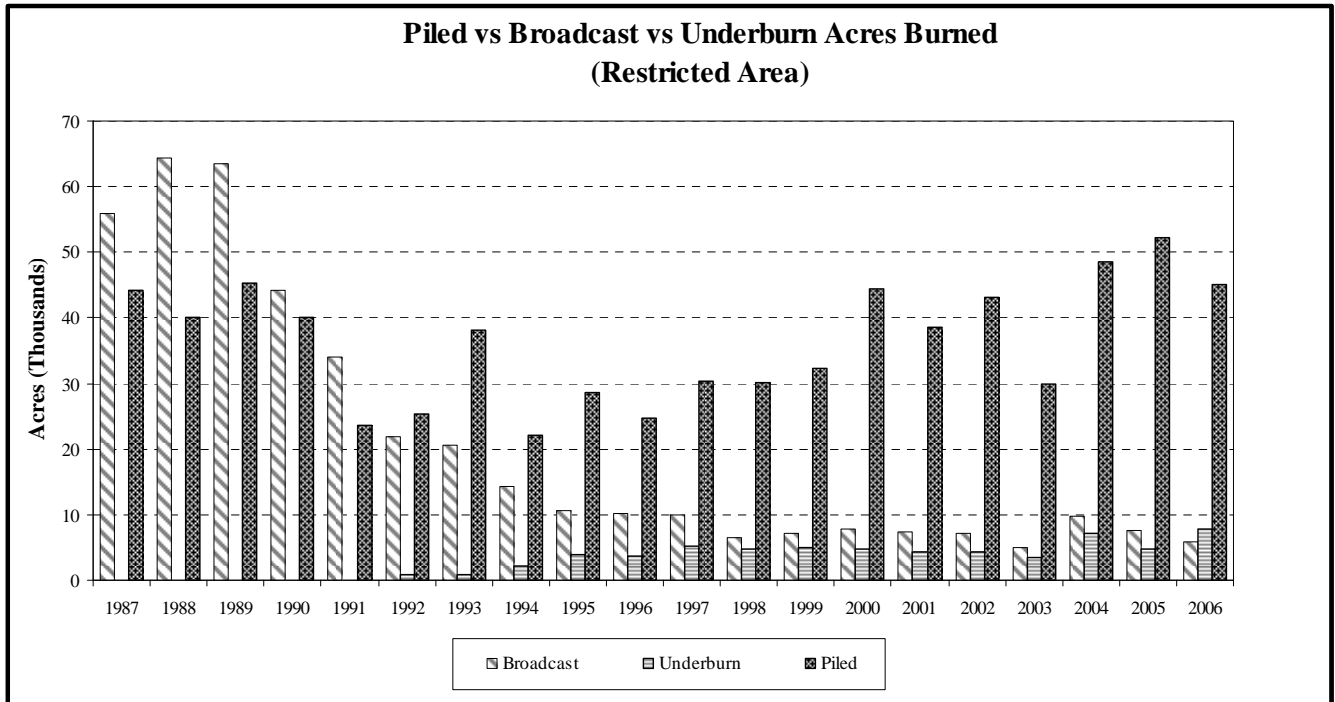
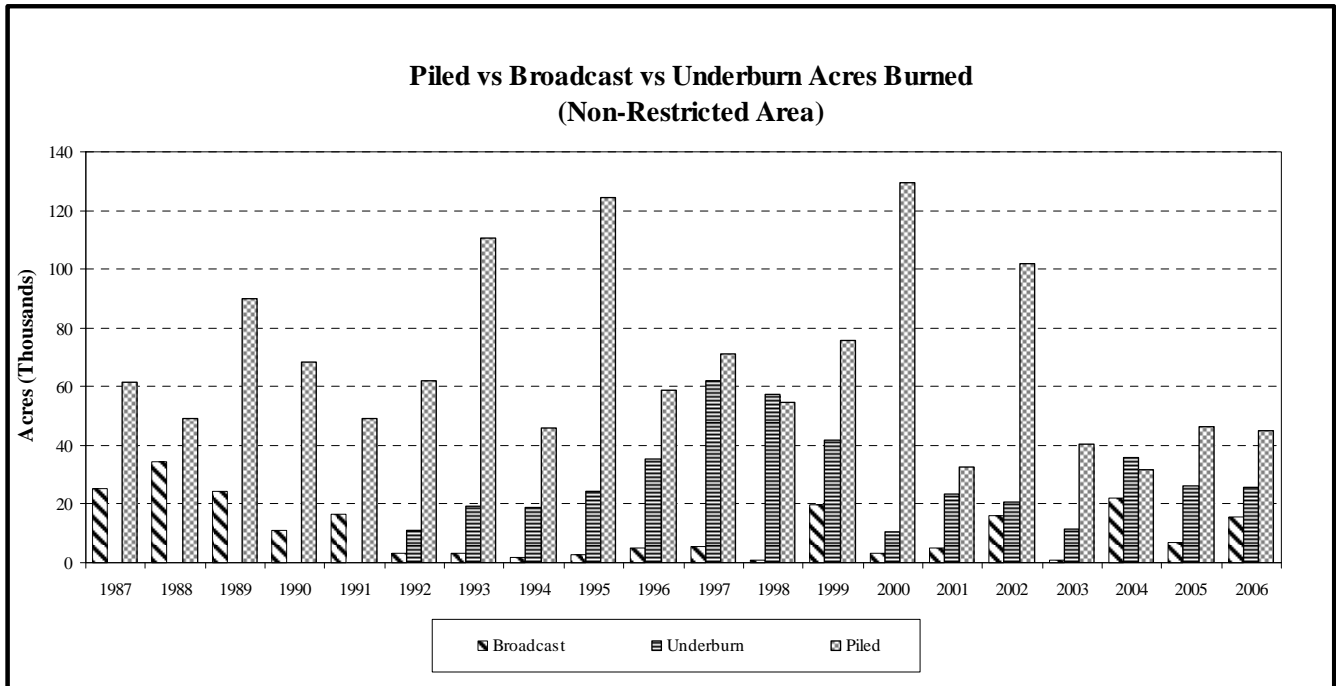


Figure 10



**Table 5A**  
**BURN SUMMARY BY DISTRICT -- 2006**  
 (Restricted Area)

District/Forest	Units Burned	Acres Burned	Tons Burned
Astoria	71	575	28,045
Coos FPA	502	5,713	222,096
Douglas FPA	259	3,603	104,338
Forest Grove	222	2,911	45,281
North Cascade	112	2,320	62,247
South Cascade	310	5,964	181,469
Southwest	403	12,414	131,481
Tillamook	66	1,108	23,281
Western Lane	181	2,828	62,310
West Oregon	383	5,890	132,859
Deschutes NF	171	8,754	158,321
Klamath NF	4	16	112
Mt Hood NF	22	838	3,715
Rogue River\Siskiyou NF	85	2,263	36,895
Siuslaw NF	40	271	1,542
Umpqua NF	45	1,084	36,404
Willamette NF	119	2,246	31,888
<b>TOTAL</b>	<b>2,995</b>	<b>58,798</b>	<b>1,262,284</b>

**Table 5B**  
**BURN SUMMARY BY DISTRICT -- 2006**  
 (Non-Restricted Area)

District/Forest	Units Burned	Acres Burned	Tons Burned
Central Oregon	98	20,914	97,418
Klamath-Lake	68	5,248	63,192
Northeast	162	24,167	72,189
Walker Range	8	4,291	63,512
Crater Lake NP	0	0	0
Fremont NF	6	8,566	106,010
Malheur NF	70	4,364	43,211
Ochoco NF	2	299	4,186
Umatilla NF	24	6,095	102,815
Wallowa-Whitman NF	62	9,248	107,052
Winema NF	70	3,268	45,333
<b>TOTAL</b>	<b>570</b>	<b>86,460</b>	<b>704,918</b>

**Table 6A**  
**Tons Burned by Month by District**  
**2006**  
**(Restricted Area)**

<b>District</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total by District</b>
Astoria	2,740									545	21,248	3,512	28,045
Coos	947	19,241	360	7,963	14,534	4,733				16,948	131,278	26,092	222,096
Douglas	1,075	1,501		1,607	2				1,476	1,809	92,745	4,123	104,338
Forest Grove	583	444	231	430	200	200				5,139	30,292	7,762	45,281
North Cascade			2	3,272		830				506	54,410	3,227	62,247
South Cascade	821		69	40,500	675	306				982	133,983	4,133	181,469
Southwest	1,688	15,460	5,141	3,389	4,470					3,404	85,126	12,803	131,481
Tillamook			80		185	25				2,560	20,124	307	23,281
West Lane	656	2,927	6	3,126	2,226	560				1,233	48,141	3,435	62,310
West Oregon		1,498	400	100	2,922	423	56			10,781	107,731	8,948	132,859
Klamath NF												112	112
Mt Hood NF			198	200	152	1,667				359	1,139		3,715
Rogue River NF	90		503	1,759						645	10,015	280	13,292
Siskiyou NF		128			3					3,279	20,193		23,603
Siuslaw NF									190	95	1,257		1,542
Umpqua NF				14,908	13,798	120				4,501	3,077		36,404
Willamette NF	80	267		1,178	8,596	10,242	570		184	2,969	7,467	335	31,888
Deschutes NF				3,307	16,265	804				61,045	76,854	46	158,321
<b>District Total</b>	<b>8,510</b>	<b>41,071</b>	<b>6,289</b>	<b>60,387</b>	<b>25,214</b>	<b>7,077</b>	<b>56</b>	<b>0</b>	<b>1,476</b>	<b>43,907</b>	<b>725,078</b>	<b>74,342</b>	<b>993,407</b>
<b>Forest Total</b>	<b>170</b>	<b>395</b>	<b>701</b>	<b>21,352</b>	<b>38,814</b>	<b>12,833</b>	<b>570</b>	<b>0</b>	<b>374</b>	<b>72,893</b>	<b>120,002</b>	<b>773</b>	<b>268,877</b>
<b>Grand Total</b>	<b>8,680</b>	<b>41,466</b>	<b>6,990</b>	<b>81,739</b>	<b>64,028</b>	<b>19,910</b>	<b>626</b>	<b>0</b>	<b>1,850</b>	<b>116,800</b>	<b>845,080</b>	<b>75,115</b>	<b>1,262,284</b>

**Table 6B**  
**Tons Burned by Month by District**  
**2006**  
**(Non-Restricted Area)**

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total by District
Central Oregon		246	80	26,398	11,398				38,800	2,806	16,840	850	97,418
Klamath-Lake		1,038	80	1,354						5,445	42,957	12,318	63,192
Northeast										6,594	35,717	29,878	72,189
Walker Range											63,512		63,512
Crater Lake NP													0
Fremont NF				34,500	27,476					44,034			106,010
Malheur NF					1,144	225			630	15,975	24,984	253	43,211
Ochoco NF					4,186								4,186
Umatilla NF					87,050	1,380			7,030	7,355			102,815
Wallowa-Whitman NF					53,688				16,375	35,628	1,361		107,052
Winema NF				1,480	11,225	114				19,109	13,405		45,333
<b>District Total</b>	<b>0</b>	<b>1,284</b>	<b>160</b>	<b>27,752</b>	<b>11,398</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38,800</b>	<b>14,845</b>	<b>159,026</b>	<b>43,046</b>	<b>296,311</b>
<b>Forest Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35,980</b>	<b>184,769</b>	<b>1,719</b>	<b>0</b>	<b>0</b>	<b>24,035</b>	<b>122,101</b>	<b>39,750</b>	<b>253</b>	<b>408,607</b>
<b>Grand Total</b>	<b>0</b>	<b>1,284</b>	<b>160</b>	<b>63,732</b>	<b>196,167</b>	<b>1,719</b>	<b>0</b>	<b>0</b>	<b>62,835</b>	<b>136,946</b>	<b>198,776</b>	<b>43,299</b>	<b>704,918</b>

**Table 7A**  
**Acres Burned by Month by District**  
**2006**  
**(Restricted Area)**

<b>District</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total by District</b>
Astoria	125									47	318	85	575
Coos	23	726	13	259	510	151				451	2,872	708	5,713
Douglas	94	237		93	1				342	313	2,482	41	3,603
Forest Grove	40	30	13	14	7	2				332	1,822	651	2,911
North Cascade			1	108		83				54	1,875	199	2,320
South Cascade	26		3	45	27	22				83	5,516	242	5,964
Southwest	252	1,280	437	658	966					548	7,031	1,242	12,414
Tillamook			29		43	1				36	995	4	1,108
West Lane	47	213	1	211	134	14				67	1,898	243	2,828
West Oregon		144	15	5	183	23	3			517	4,653	347	5,890
Klamath NF												16	16
Mt Hood NF			100	17	23	241				50	407		838
Rogue River NF	3		84	152						43	681	56	1,019
Siskiyou NF		32			1					481	730		1,244
Siuslaw NF									38	25	208		271
Umpqua NF				289	405	48				153	189		1,084
Willamette NF	28	10		54	315	354	15		8	240	1,167	55	2,246
Deschutes NF				996	2,138	251				2,144	3,204	21	8,754
<b>District Total</b>	<b>607</b>	<b>2,630</b>	<b>512</b>	<b>1,393</b>	<b>1,871</b>	<b>296</b>	<b>3</b>	<b>0</b>	<b>342</b>	<b>2,448</b>	<b>29,462</b>	<b>3,762</b>	<b>43,326</b>
<b>Forest Total</b>	<b>31</b>	<b>42</b>	<b>184</b>	<b>1,508</b>	<b>2,882</b>	<b>894</b>	<b>15</b>	<b>0</b>	<b>46</b>	<b>3,136</b>	<b>6,586</b>	<b>148</b>	<b>15,472</b>
<b>Grand Total</b>	<b>638</b>	<b>2,672</b>	<b>696</b>	<b>2,901</b>	<b>4,753</b>	<b>1,190</b>	<b>18</b>	<b>0</b>	<b>388</b>	<b>5,584</b>	<b>36,048</b>	<b>3,910</b>	<b>58,798</b>

**Table 7B**  
**Acres Burned by Month by District**  
**2006**  
**(Non-Restricted Area)**

<b>District</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total by District</b>
Central Oregon		100	40	2,853	1,113				9,700	425	6,453	230	20,914
Klamath-Lake	396	40	677							269	3,150	716	5,248
Northeast										1,183	10,543	12,441	24,167
Walker Range											4,291		4,291
Crater Lake NP													0
Fremont NF				1,100	3,768					3,698			8,566
Malheur NF					143	75			210	1,007	2,918	11	4,364
Ochoco NF					299								299
Umatilla NF					4,897	138			551	509			6,095
Wallowa-Whitman NF					3,209				2,925	2,806	308		9,248
Winema NF				86	594	3				1,131	1,454		3,268
<b>District Total</b>	<b>396</b>	<b>140</b>	<b>717</b>	<b>2,853</b>	<b>1,113</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,700</b>	<b>1,877</b>	<b>24,437</b>	<b>13,387</b>	<b>54,620</b>
<b>Forest Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,186</b>	<b>12,910</b>	<b>216</b>	<b>0</b>	<b>0</b>	<b>3,686</b>	<b>9,151</b>	<b>4,680</b>	<b>11</b>	<b>31,840</b>
<b>Grand Total</b>	<b>396</b>	<b>140</b>	<b>717</b>	<b>4,039</b>	<b>14,023</b>	<b>216</b>	<b>0</b>	<b>0</b>	<b>13,386</b>	<b>11,028</b>	<b>29,117</b>	<b>13,398</b>	<b>86,460</b>

**TABLE 8A**  
**TONS BURNED BY MONTH WITHIN COUNTY**  
**2006**  
**(Restricted Area)**

County	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Benton	0	0	400	100	0	133	0	0	190	388	34649	2710	38,570
Clackamas	0	0	2	3250	32	830	0	0	0	205	17202	3013	24,534
Clatsop	2740	0	0	0	0	0	0	0	0	1045	22309	3512	29,606
Columbia	30	0	10	60	0	0	0	0	0	3422	7538	2979	14,039
Coos	693	12803	80	6358	8835	1184	0	0	0	7353	99570	9425	146,301
Curry	254	1599	280	0	2784	0	0	0	0	9867	15271	12592	42,647
Deschutes	0	0	0	2505	2876	444	0	0	0	4451	4703	16	14,995
Douglas	1177	7145	0	17832	12649	4229	0	0	1476	6480	114892	8342	174,222
Hood River	0	0	0	0	0	0	0	0	0	4	307	0	311
Jackson	1142	7365	4003	2440	1326	0	0	0	0	930	63494	8427	89,127
Jefferson	0	0	0	0	1560	360	0	0	0	54	343	30	2,347
Josephine	546	8095	1641	2442	3147	0	0	0	0	6051	50997	4768	77,687
Klamath	0	0	0	0	1369	0	0	0	0	56540	70675	0	128,584
Lake	0	0	0	802	10460	0	0	0	0	0	1133	0	12,395
Lane	690	2508	7	4858	12699	1498	570	0	0	4100	92061	7309	126,300
Lincoln	0	1498	0	0	2470	0	56	0	0	8311	30905	3638	46,878
Linn	855	9	68	40500	1464	9050	0	0	184	1084	96286	450	149,950
Marion	0	0	0	102	1400	0	0	0	0	307	36473	0	38,282
Multnomah	0	0	0	120	0	0	0	0	0	0	2265	214	2,599
Polk	0	0	0	0	0	290	0	0	0	825	33392	220	34,727
Tillamook	0	0	80	0	185	25	0	0	0	4612	24505	1632	31,039
Wasco	0	0	198	0	120	1667	0	0	0	349	640	0	2,974
Washington	533	69	221	370	0	0	0	0	0	182	11079	2741	15,195
Yamhill	20	375	0	0	652	200	0	0	0	240	14391	3097	18,975
<b>TOTAL</b>	<b>8,680</b>	<b>41,466</b>	<b>6,990</b>	<b>81,739</b>	<b>64,028</b>	<b>19,910</b>	<b>626</b>	<b>0</b>	<b>1,850</b>	<b>116,800</b>	<b>845,080</b>	<b>75,115</b>	<b>1,262,284</b>

**TABLE 8B**

**TONS BURNED BY MONTH WITHIN COUNTY  
2006  
(Non-Restricted Area)**

County	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baker	0	0	0	0	1638	0	0	0	0	8273	1708	0	11,619
Crook	0	0	0	0	4186	0	0	0	3400 0	0	336	40	38,562
Deschutes	0	246	80	377	0	0	0	0	0	0	2209	150	3,062
Grant	0	0	0	0	78459	0	0	0	0	12479	3250	253	94,441
Harney	0	0	0	2601 1	11398	225	0	0	5430	9117	23762	550	76,493
Hood River	0	0	0	0	0	0	0	0	0	459	10011	110	10,580
Jefferson	0	0	0	10	0	0	0	0	0	0	1256	0	1,266
Klamath	0	1038	80	2834	13025	114	0	0	0	22289	109545	2103	151,028
Lake	0	0	0	3450 0	25676	0	0	0	0	46299	10329	10215	127,019
Morrow	0	0	0	0	0	1380	0	0	4750	3351	4120	0	13,601
Umatilla	0	0	0	0	3600	0	0	0	2280	5404	5589	1030	17,903
Union	0	0	0	0	9580	0	0	0	1637 5	0	1689	28848	56,492
Wallowa	0	0	0	0	48605	0	0	0	0	28545	23972	0	101,122
Wasco	0	0	0	0	0	0	0	0	0	730	1000	0	1,730
Wheeler	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>1,284</b>	<b>160</b>	<b>63,732</b>	<b>196,167</b>	<b>1,719</b>	<b>0</b>	<b>0</b>	<b>62,835</b>	<b>136,946</b>	<b>198,776</b>	<b>43,299</b>	<b>704,918</b>

**Table 9A**  
**Burn Data by Owner Type**  
**2006**  
**(Restricted Area)**

District/ Forest	Private			State			Federal (Except USFS)			USFS		
	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons	Units	Acres	Tons
Astoria	51	468	22,924	20	107	5,121	0	0	0			
Coos FPA	449	5,259	204,705	27	225	12,758	26	229	4,633			
Douglas FPA	191	2,429	95,574	1	4	240	67	1,170	8,524			
Forest Grove	217	2,855	44,751	1	50	500	3	3	15			
North Cascade	100	2,043	58,745	9	193	2,670	3	84	832			
South Cascade	296	5,784	178,099	3	54	637	11	126	2,733			
Southwest	135	1,181	29,041	3	4	88	265	11,229	102,352			
Tillamook	38	1,064	19,168	25	41	4,091	3	3	22			
West Lane	172	2,708	59,354	0	0	0	9	120	2,956			
West Oregon	376	5,770	131,279	3	55	575	4	65	1,005			
Klamath NF										4	16	112
Mt Hood NF										22	838	3,715
Rogue River NF										34	1,019	13,292
Siskiyou NF										51	1,244	23,603
Siuslaw NF										40	271	1,542
Umpqua NF										45	1,084	36,404
Willamette NF										119	2,246	31,888
Deschutes NF										171	8,754	158,321
<b>Totals</b>	<b>2,025</b>	<b>29,561</b>	<b>843,640</b>	<b>92</b>	<b>733</b>	<b>26,680</b>	<b>391</b>	<b>13,029</b>	<b>123,072</b>	<b>486</b>	<b>15,472</b>	<b>268,877</b>

**Table 9B**  
**Burn Data by Owner Type**  
**2006**  
**(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	53	5,760	15,365	3	334	896	42	14,820	81,157			
Klamath-Lake	48	3,046	41,235	3	70	10,985	17	2,132	10,972			
Northeast	158	23,905	69,923	0	0	0	4	262	2,266			
Walker Range	8	4,291	63,512	0	0	0	0	0	0			
Crater Lake NP							0	0	0			
Fremont NF										6	8,566	106,010
Malheur NF										70	4,364	43,211
Ochoco NF										2	299	4,186
Umatilla NF										24	6,095	102,815
Wallowa-Whitman NF										62	9,248	107,052
Winema NF										70	3,268	45,333
<b>TOTALS</b>	<b>267</b>	<b>37,002</b>	<b>190,035</b>	<b>6</b>	<b>404</b>	<b>11,881</b>	<b>63</b>	<b>17,214</b>	<b>94,395</b>	<b>234</b>	<b>31,840</b>	<b>408,607</b>

**Figure 11**

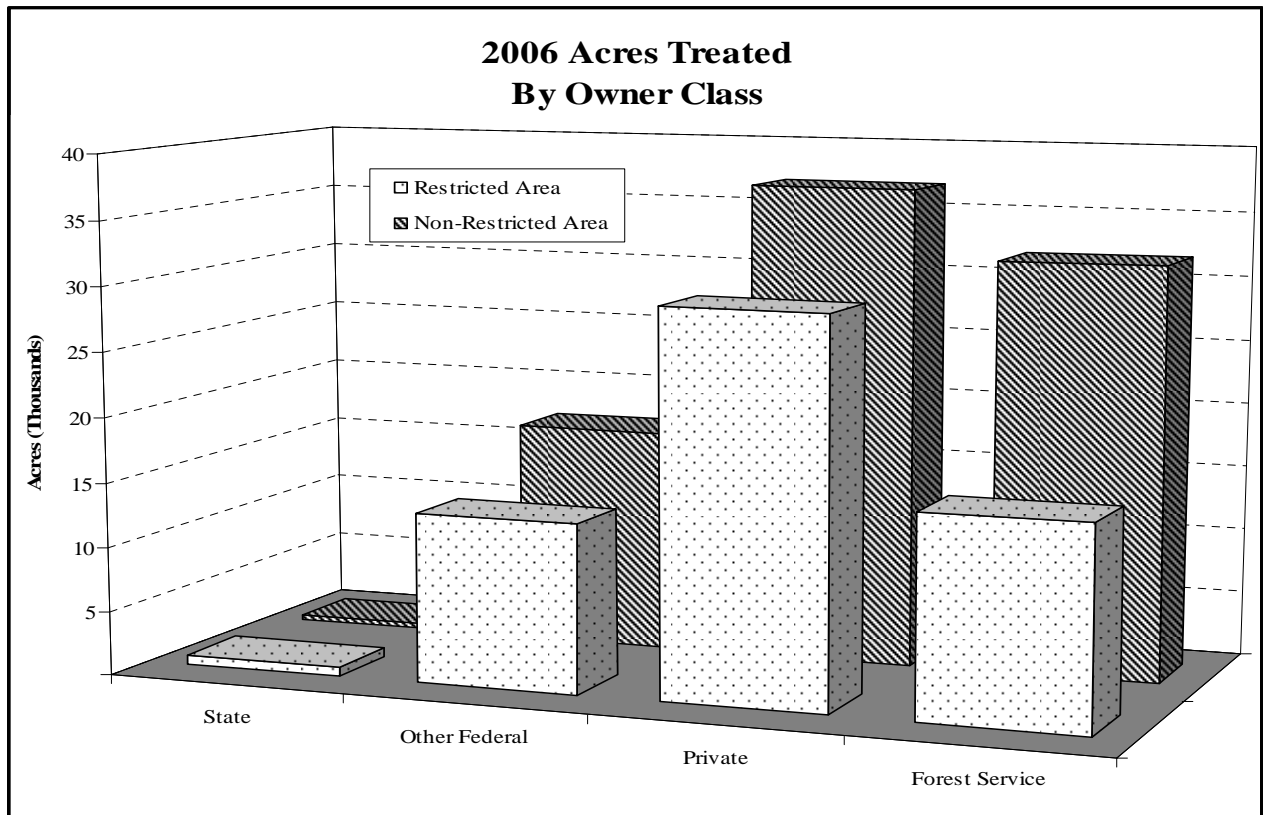


Figure 12A

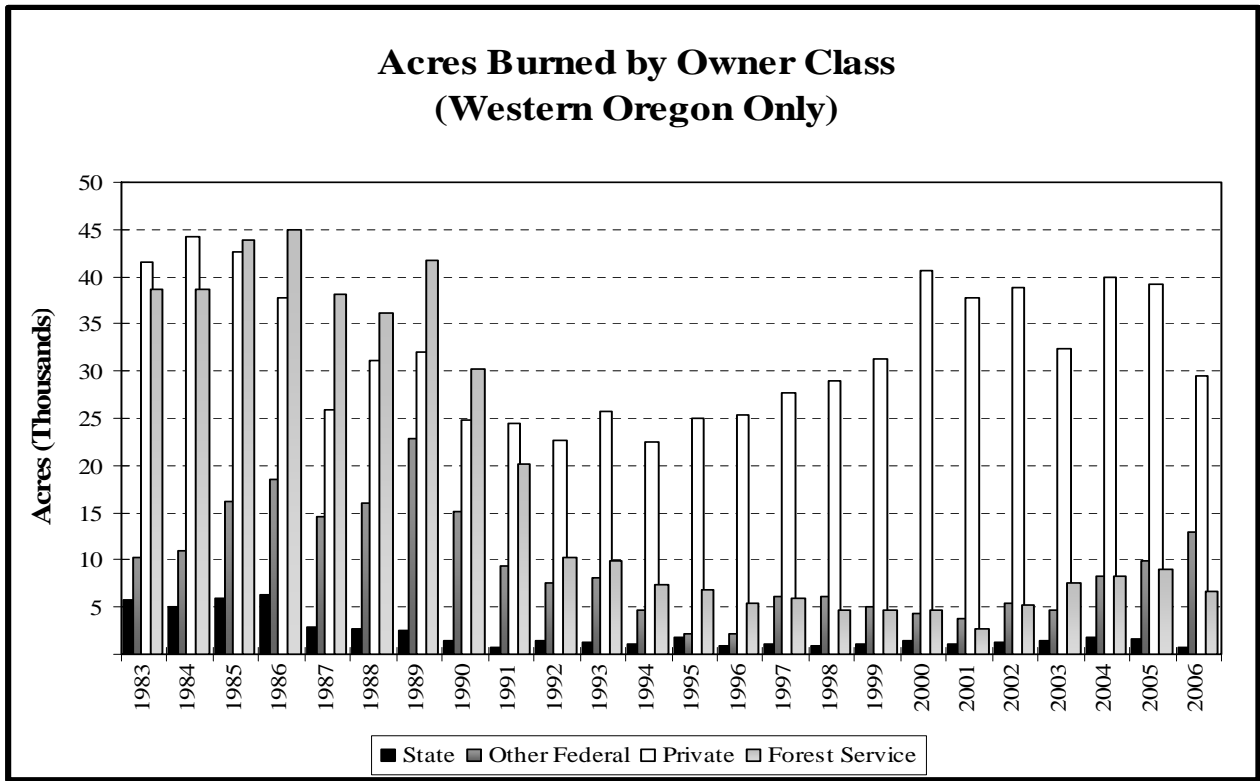


Figure 12B

