Appendix C10 West Coast Regional Fire Returns 1991/92 to 2006/07

Number of Fires (Figure WC1):

- From 1991/92 to 2006/07, the West Coast had on average about 64 fires annually or around 3% of the total national number of fires.
- The number of fires varied from 22 in 1996/97 (about 1% of that year's total) to 115 fires in (or 4% of that year's annual total) 2000/01.
- The total annual number of fires did not display a statistically significant negative trend with respect to time (regression: R^2 = 0.1186; F-value = 1.88; P-value = 0.192). The total annual number of fires over time also did not significantly correlate with the national trend of increasing number of fires (correlation coefficient = -0.345; P-value = 0.190).

Area Burned (Figure WC2):

- The average annual total area burned for the West Coast was 249 ha (around 6% of the national).
- The total annual area burned varied considerably over time, from just 6 ha (0.1% of that year's annual national total) to 530 ha (3% of that year's national annual total). In addition, the West Coast made up just under 25% of the national total area burned with 446 ha in 1991/92.
- The total annual area burned from 1991/92 to 2006/07 for the West Coast showed a statistically insignificant negative trend (regression: R^2 = 0.0609; F-value = 0.91; P-value = 0.357).

Number of Fires by Cause (Figures WC3 and WC4):

- Around 35% (annual average of about 22 fires) of the West Coast's average number of fires for all years was attributed to unknown causes; and around 18% (annual average of about 12 fires) was attributed to miscellaneous causes; thus around 54% was on average accounted for by 'unspecific' causes.
- Around 13% of the average annual number of fires were due to land clearing (annual average just 8 fires). Incendiary made up about 11% of the average annual number of fires (annual average of just 7 fires).
- Much of the variation in the total annual area burned for the West Coast appeared to be driven by changes in the number of unknown, miscellaneous, and incendiary fires.

Area Burned by Fuel type (Figures WC5 and WC6):

- 83% of the total area burned was scrub (annual average of 206 ha); 13% was grass (annual average of 33 ha); and around 4% was forest (annual average of just 10 ha).
- In all but one fire year (1991/92), scrub dominated the total area burned.

Area Burned by Cause (Figures WC7 and WC8):

- Unlike many other regions, incendiary contributed highly to the average annual area burned on the West Coast. Around a third of the average

annual area burned was attributed to incendiary causes (or annually 83 ha).

- Around 22% (or about 55 ha annually) of the annual average total area burned was due to unknown causes; about 11% from miscellaneous causes; thus a third of the annual average total area burned was attributed to 'unspecific' causes.
- Land clearing made up 26% of the average annual total area burned (or 65 ha annually).
- The proportion and actual area burned varied considerably with respect to cause for different fire years. In 1991/92 and 1993/94 unknown and land clearing made up the majority of area burned; from 1998/99 onwards unknown causes barely featured; incendiary was the main cause of area burned in 1998/99, 2000/01, 2001/02 and 2003/04; and whilst hardly featuring from 1991/92 to 2004/05, miscellaneous accounted for most of the total area burned in 2005/06.

Area Burned by Cause and Fuel type (Figures WC9, WC10, WC11, WC12, WC13, and WC14):

- The average annual total grass area burned by cause was split between 45% land clearing and 47% unknown. However these averages were skewed due to the majority of the total grass area burned for the West Coast occurring in 1991/92 with over 350 ha. Few other fire years recorded more than 50 ha of grass burned.
- Most of the area burned attributed to incendiary causes appeared to be scrub. Around 39% of the average annual total scrub area burned was attributed to incendiary causes (annual average around 80 ha), with around 22% attributed to land clearing (actual average around 45 ha).
- Unknown causes accounted for around 19% of the average annual total scrub area burned (average annual about 40 ha); 13% (about 27 ha) from miscellaneous causes; combined 'unspecified' average annual total scrub area burned made up about 32%.
- Annual total scrub area burned for each year by cause varied considerably in 1991/92, 1995/96, 1997/98, 1999/2000, 2004/05 and 2006/07 the annual total scrub area burned less than 100 ha. 1992/93, just over 300 ha of scrub area burned, more or less split between unknown, land clearing and incendiary causes. In 1993/94 over 400 ha of total scrub area was reported burned, over 200 ha from land clearing; and over 150ha from unknown. Most of the scrub area burned in 1994/95, 1996/97 and 1997/98 was from unknown causes. Incendiary causes accounted for high total scrub area burned in 1998/99, 2001/02 and 2003/04. In 2005/06 the majority of the total scrub area burned on the West Coast was attributed to miscellaneous causes.
- The annual average total forest area burned was greatly influenced by individual fire years, with one or two main fire causes. Most of the average annual total forest area burned (56%) was attributed to land clearing (actual average figure just 6 ha annually); about 27% was attributed to incendiary causes (annual average about 3 ha).

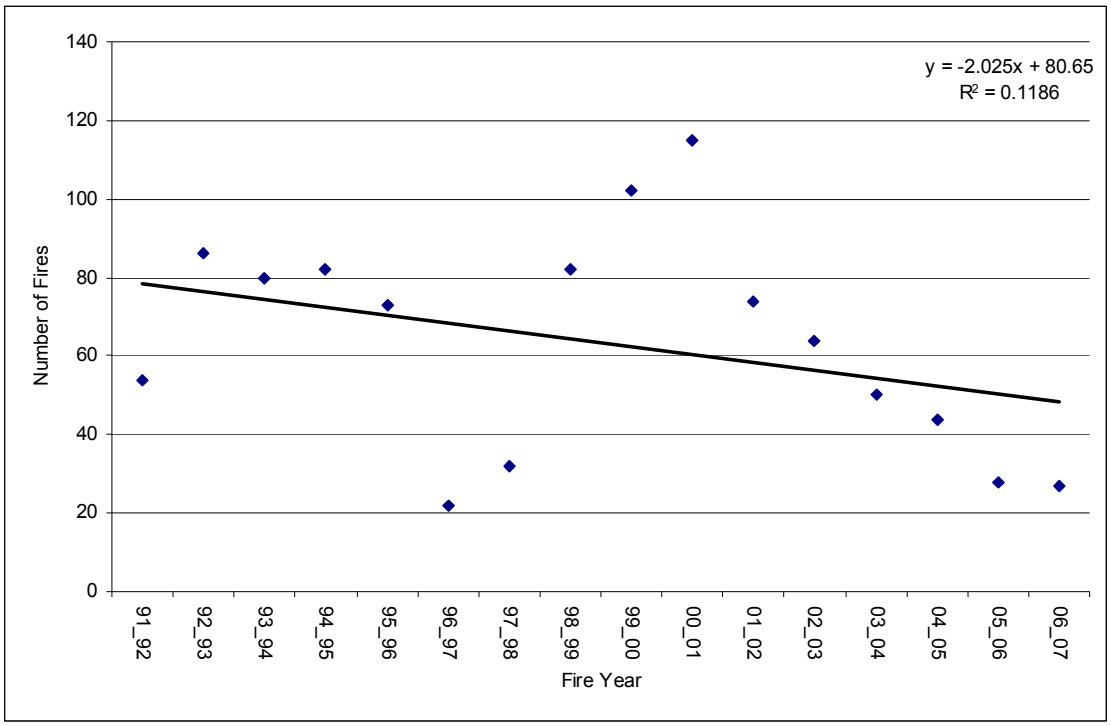

Figure WC1. West Coast total annual number of fires from 1991/92 to 2006/07.

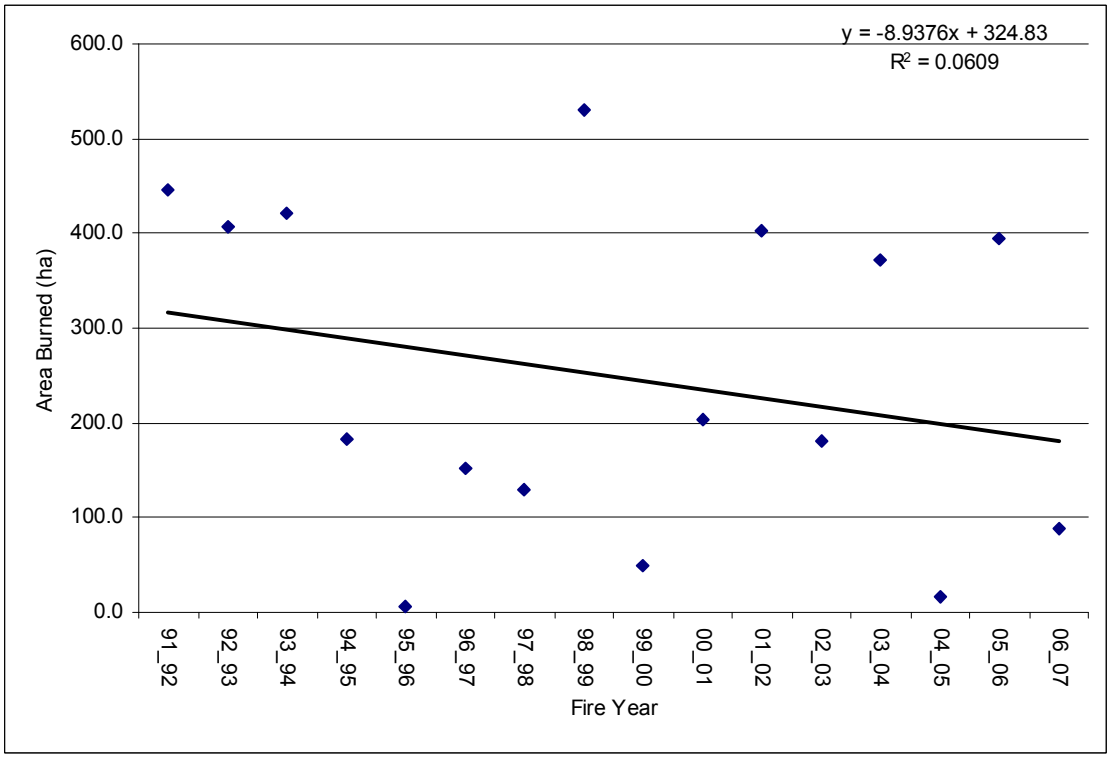

Figure WC2. West Coast total annual area burned from 1991/92 to 2006/07.

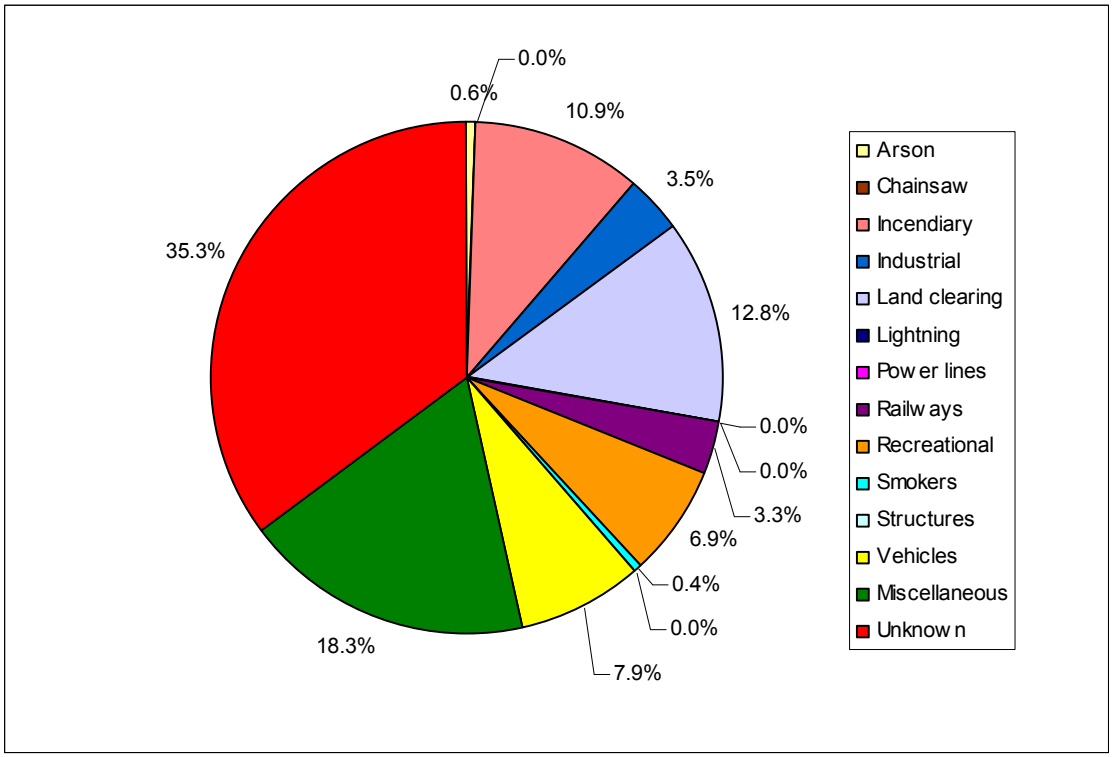

Figure WC3. West Coast total number of fires by cause from 1991/92 to 2006/07.

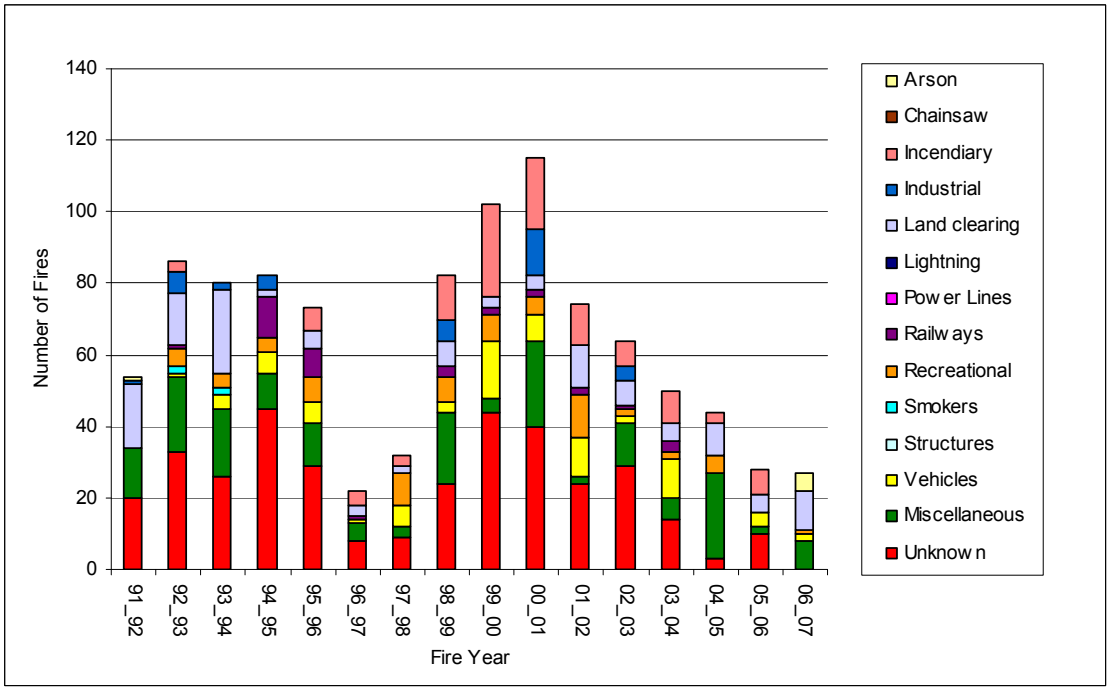

Figure WC4. West Coast total number of fires by cause from 1991/92 to 2006/07.

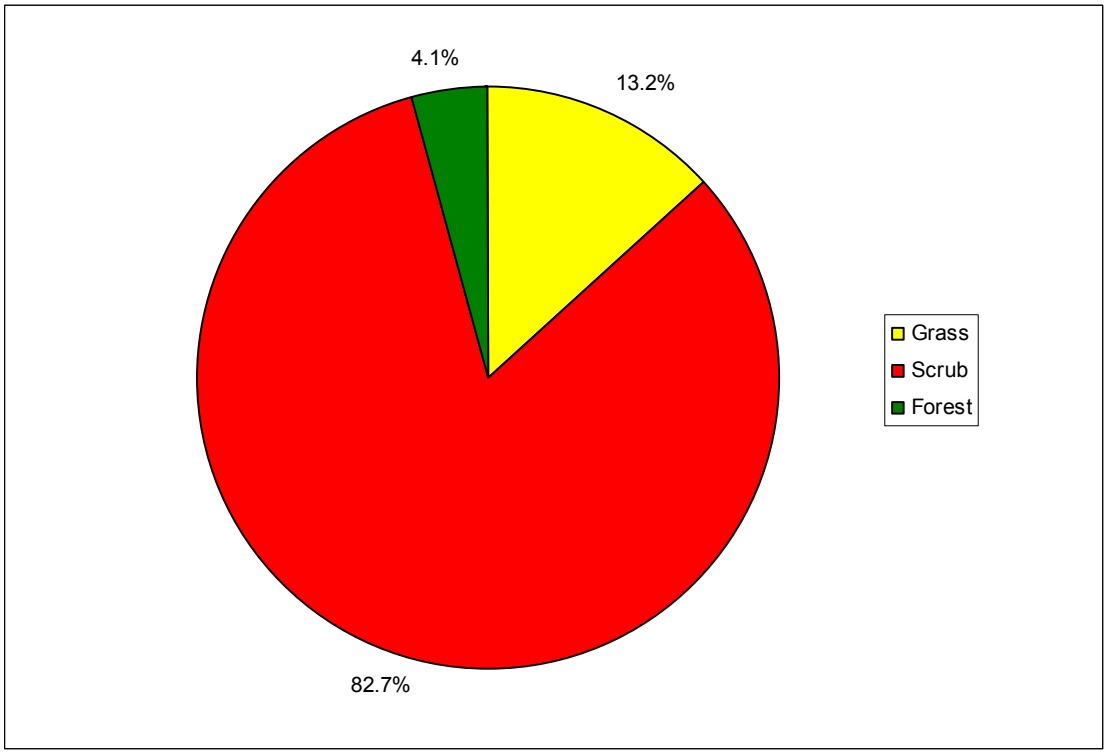

Figure WC5. West Coast total area burned by fuel type from 1991/92 to 2006/07.

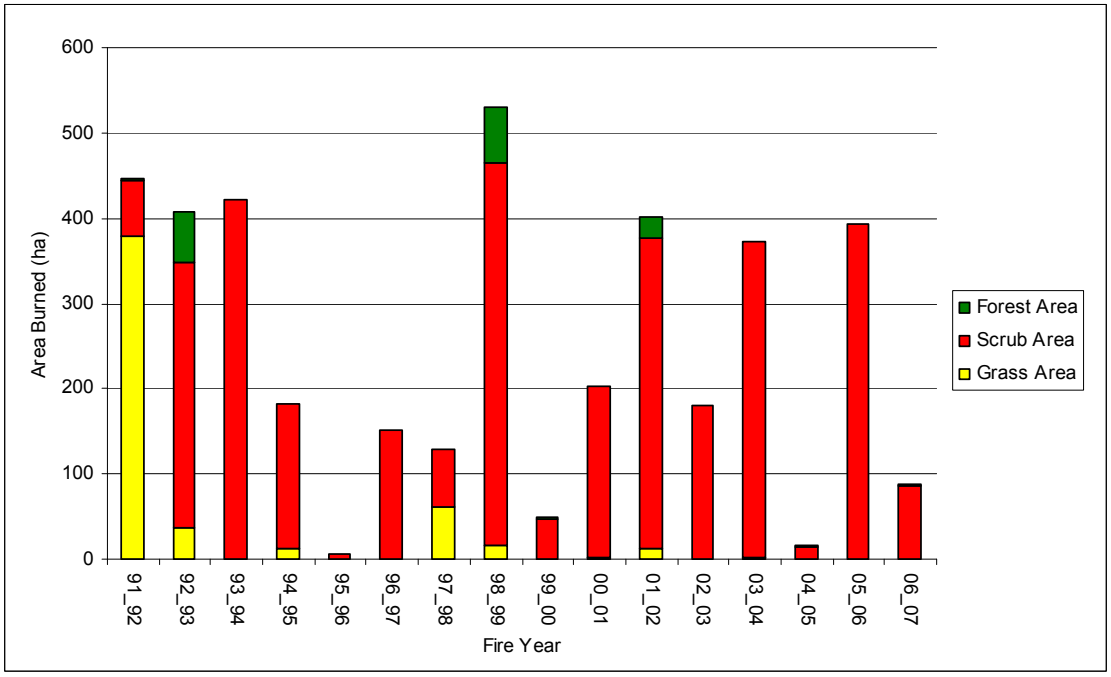

Figure WC6. West Coast total area burned by fuel type from 1991/92 to 2006/07.

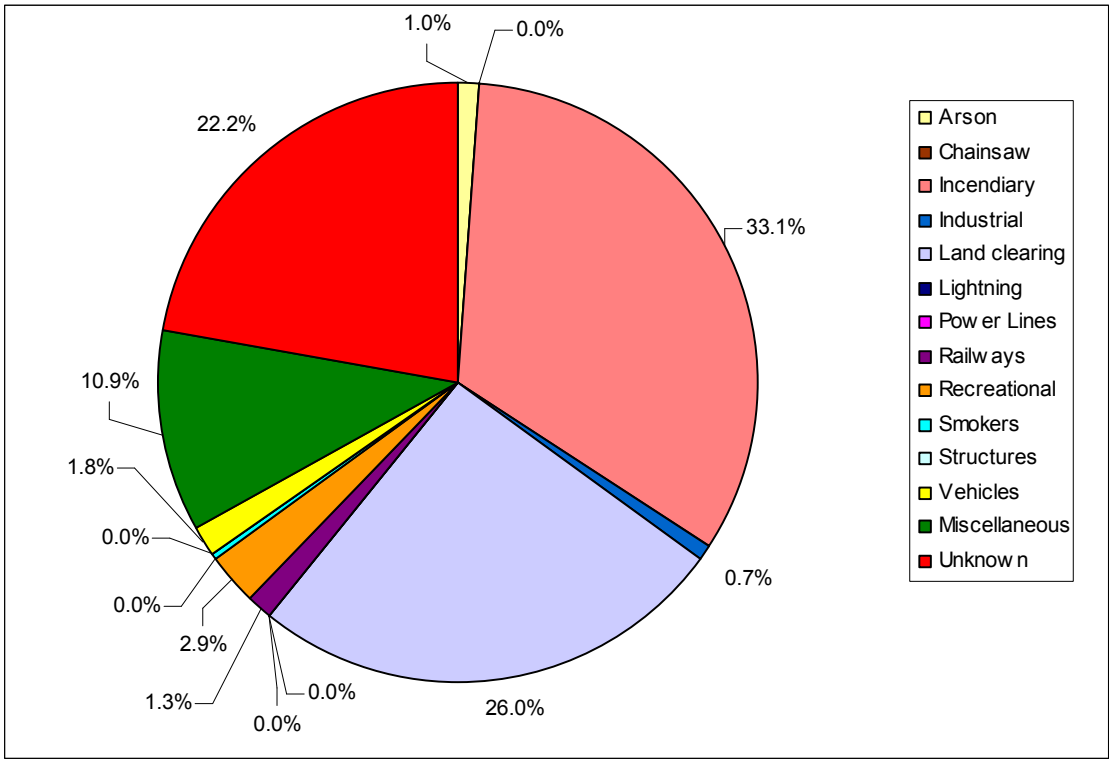

Figure WC7. West Coast total area burned by cause from 1991/92 to 2006/07.

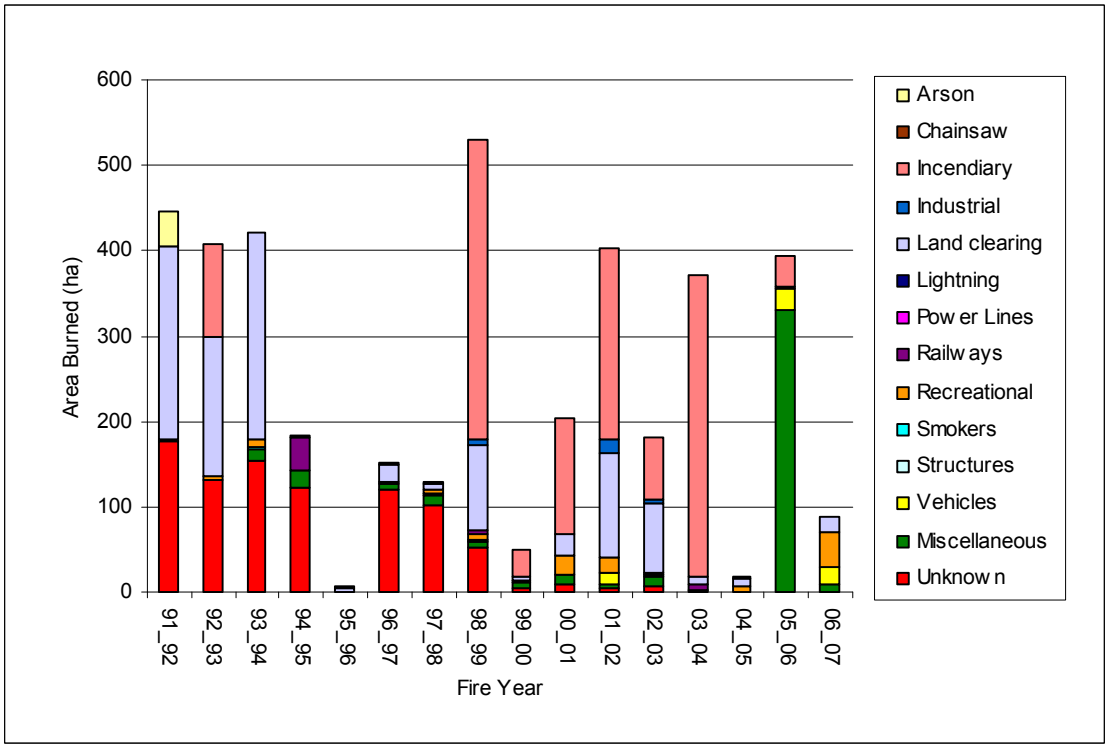

Figure WC8. West Coast Total area burned by cause from 1991/92 to 2006/07.

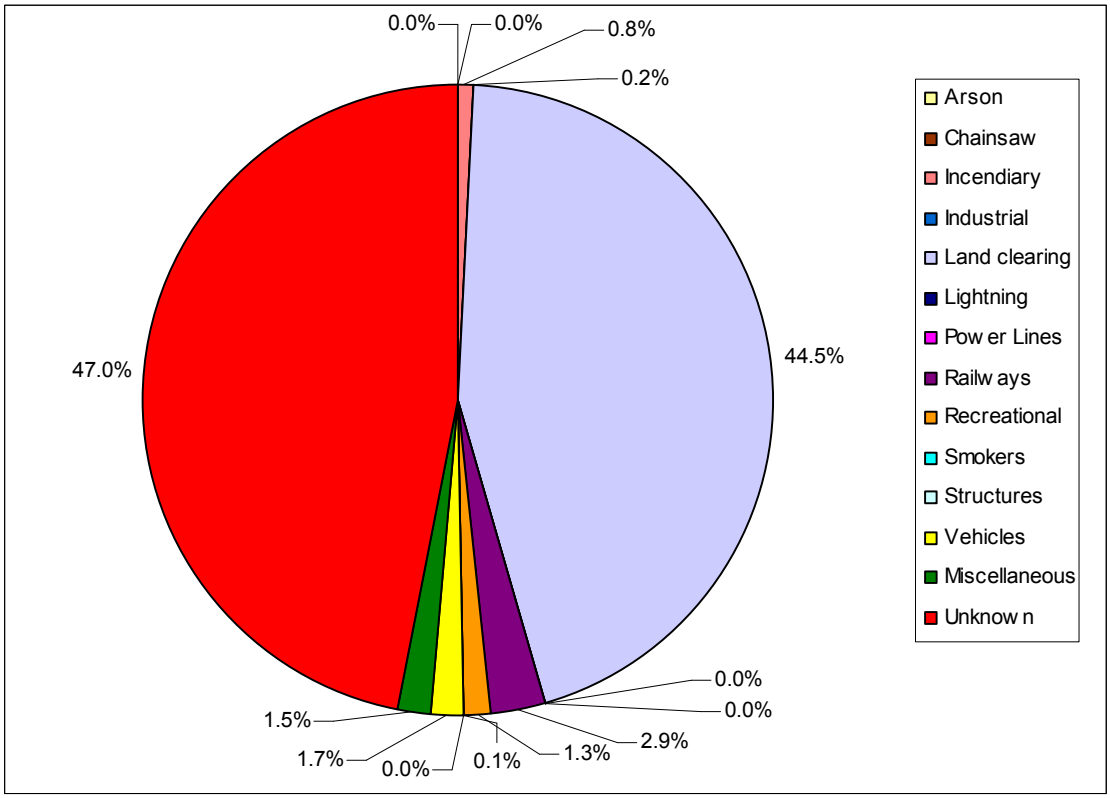

Figure WC9. West Coast average total annual grass area burned from 1991/92 to 2006/07.

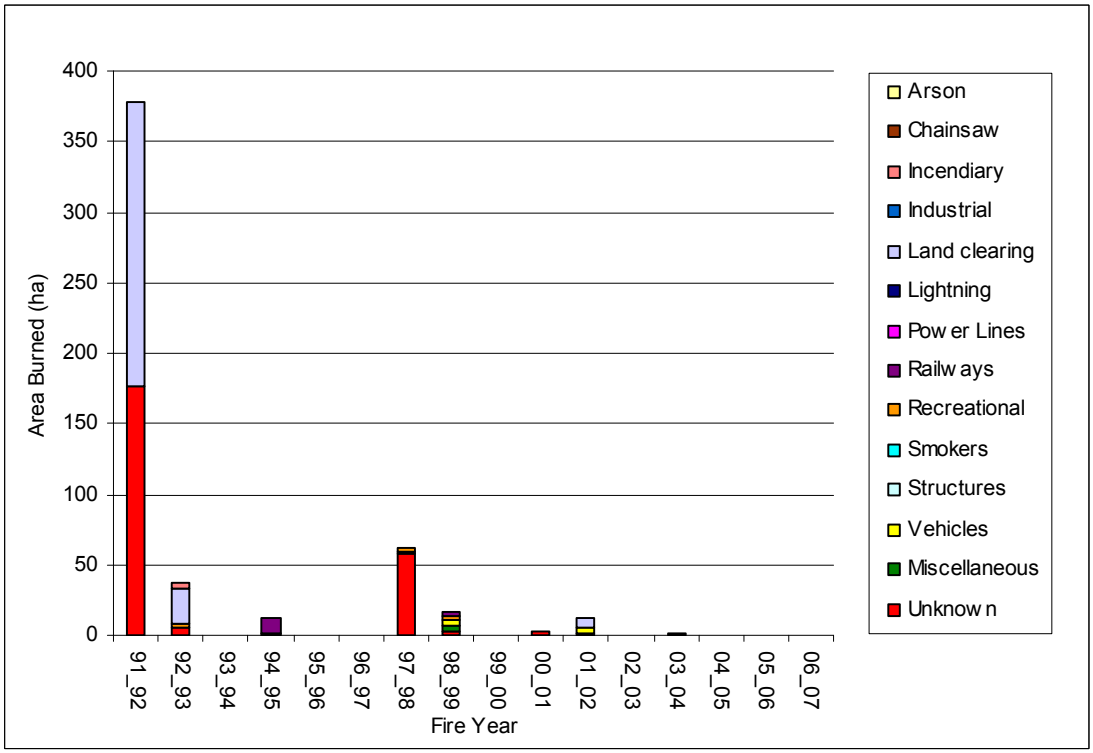

Figure WC10. West Coast total grass area burned by cause from 1991/92 to 2006/07.

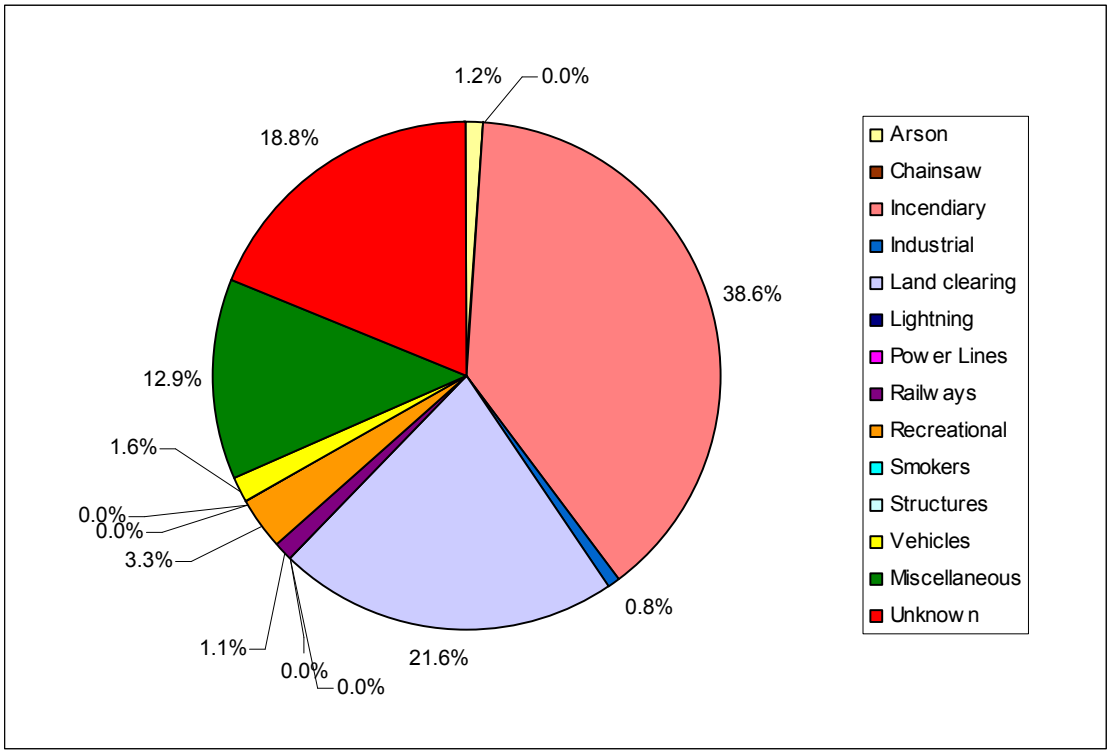

Figure WC11. West Coast average total scrub area burned by cause from 1991/92 to 2006/07.

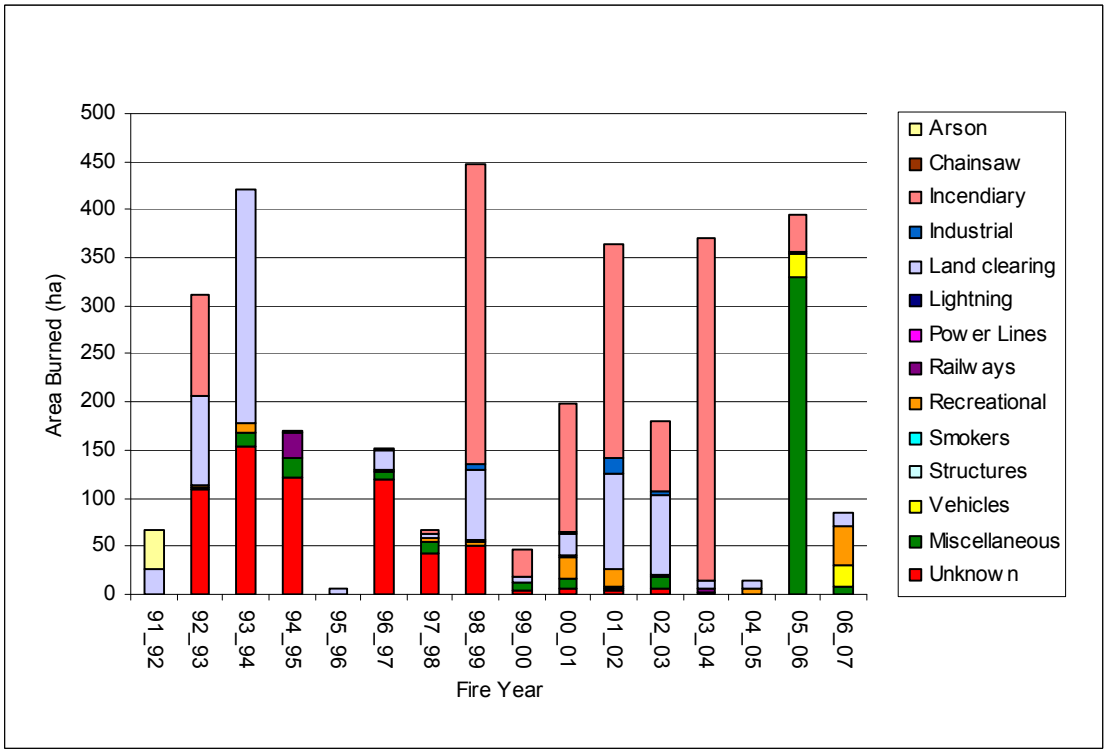

Figure WC12. West Coast total scrub area burned by cause from 1991/92 to 2006/07.

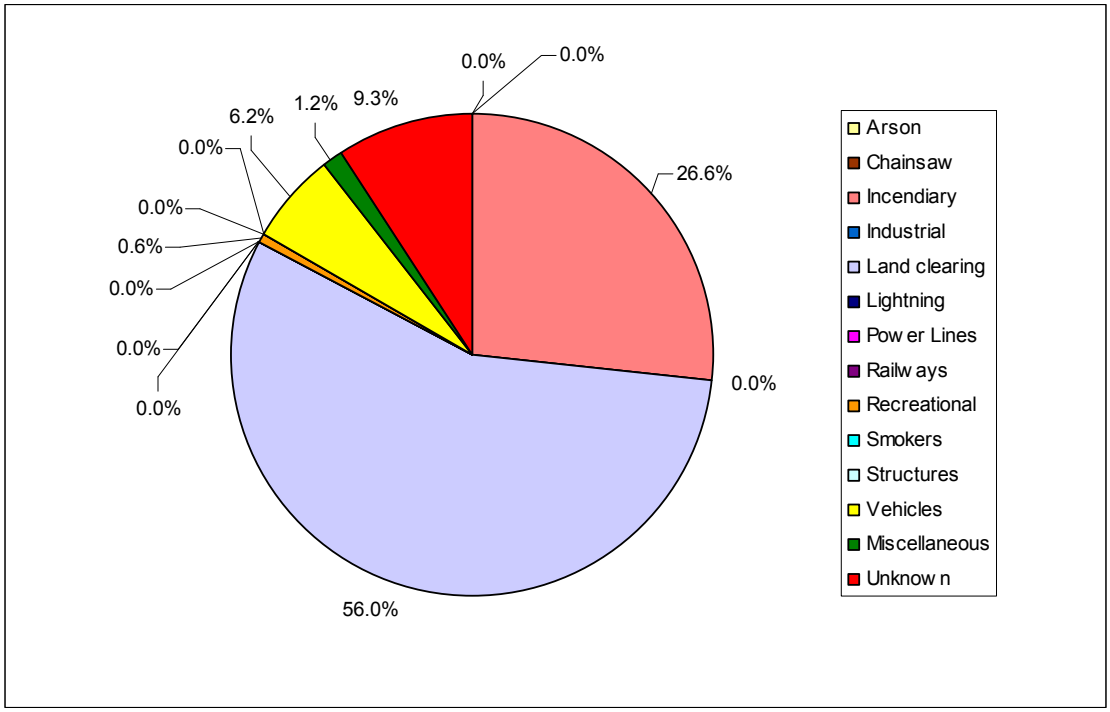

Figure WC13. West Coast average total forest area burned by cause from 1991/92 to 2006/07.

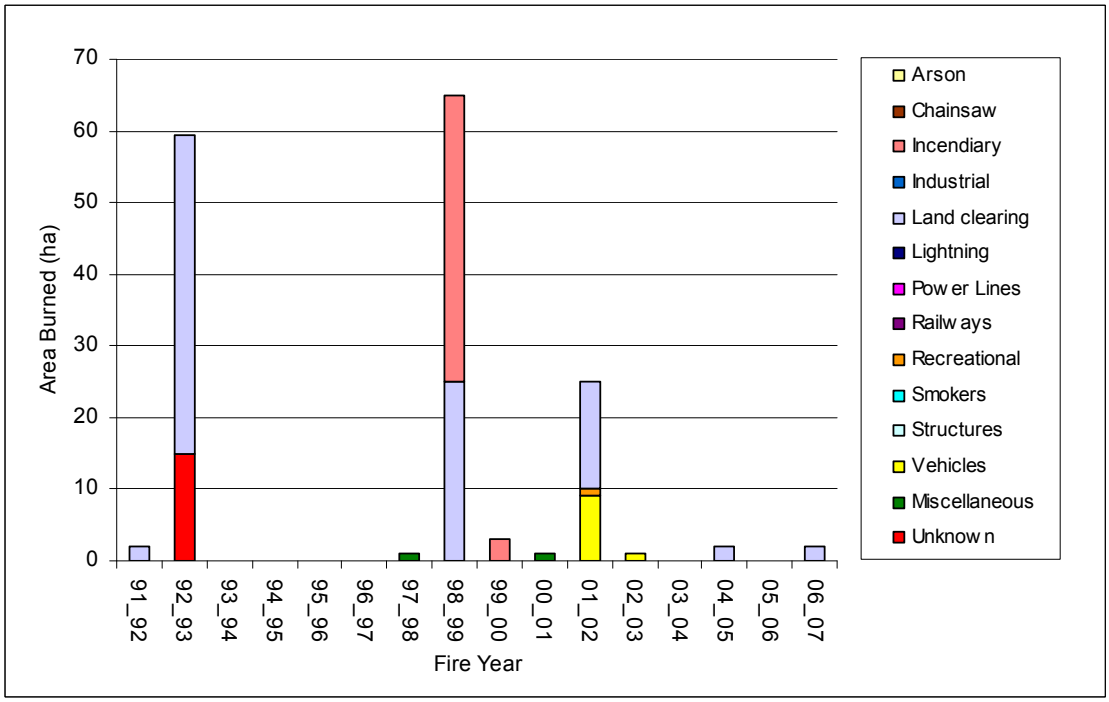

Figure WC14. West Coast total forest area burned by cause from 1991/92 to 2006/07.