

Appendix C2 Auckland Region Fire Returns 1991/92 to 2006/07

Number of Fires (Figure A1):

- From 1991/92 to 2006/07, Auckland had on average about 270 fires annually or around 9% of the total national number of fires.
- Auckland varied from 30 (3% of the national) fires in 1992/93 to 572 (26% of the national) in 1993/94.
- The total number of fires for Auckland varied greatly ($R^2 = 0.0002$) but did not display a clear statistically significant directional trend (linear regression: F-value = 0.01; P-value = 0.93). In addition, Auckland total number of fires does not significantly correlate with the national increasing trend (Same slope as above; correlation coefficient = 0.241; P-value = 0.368).

Area Burned (Figure A2):

- The average annual total area burned for Auckland was 57 ha (around 1% of the national).
- Total annual area burned over time varied considerably from around 14 ha (0.3% of national) in 1995/96 to around 280 ha (4% of national) in 1993/94 (Figure A2).
- The total area burned for Auckland showed a statistically significant decreasing trend over time (linear regression: $R^2 = 0.29$; F-value = 5.89; P-value = 0.03).

Number of Fires by Cause (Figures A3 and A4):

- On average around 27% (average 74 annually) of the Auckland fires were attributed to vehicles.
- Around 31% (average 82 annually) were classed as miscellaneous; 12% unknown (average of 33 fires annually); combined these 'unspecified' cause fires were 45%.
- Around 14% of fires (average of 37 fires annually) were classed as land clearing.
- Around 7% (average of just 19 annually) of Auckland's fires were attributed to incendiary.
- Fires from unknown, miscellaneous and vehicle causes made up the bulk of the reported total number of fires for most years studied for Auckland.

Area Burned by Fuel type (Figures A5 and A6):

- Around 62% of Auckland's total area burned over the study period was scrub. Average annual total scrub area burned was around 35 ha (2% of national).
- Around 30% of Auckland's total area burned was classed as grass; average annual grass area burned was 21 ha (1% of national).
- Around 3% of Auckland's total area burned was forest; average annual forest area burned was 2 ha (1% of national).
- Compared with other regions Auckland's area burned is relatively small, total area burned from 1991/92 to 2006/07 never exceeded 300 ha. The largest annual area burned occurred in 1993/94 and 2002/03.

Area Burned by Cause (Figures A7 and A8):

- Incendiary accounted for around 16% of the Auckland total area burned (annual average of just 9 ha).
- Land clearing accounted for around 39% of the Auckland total area burned (annual average of 22 ha).
- The total area burned classed as miscellaneous was around 25% (annual average of 14 ha); area burned classed as unknown made up around 11% (annual average of just 6 ha).

Area Burned by Cause and Fuel type (Figures A9, A10, A11, A12, A13, and A14):

- Land clearing accounted for just under 50% of the average grass area burned (annual average 10 ha).
- Unknown and miscellaneous each accounted for around 17% (annual average just 3 ha) of grass area burned.
- The largest grass area burned for a single cause was 90 ha attributed to land clearing in 1993/94. Compared to other regions, Auckland's total annual grass area burned is low (less than 200 ha).
- Land clearing accounted for around 34% of average scrub area burned from 1991/92 to 2006/07 (average annual just 12 ha).
- Incendiary accounted for about 20% of the average scrub area burned (annual average of 8 ha).
- Miscellaneous accounted for 29% (annual average 10 ha); unknown accounted for around 8% of the average total scrub area burned 1991/92 to 2006/07 (annual average just 3 ha).
- The largest total scrub areas burned for single causes occurred in 1991/92 (miscellaneous 100 ha), 1993/94 (land clearing 74 ha incendiary 68 ha).
- The annual forest area burned was less than 10 ha. Very little meaningful conclusions with relation to cause can be draw from an area burned so low.

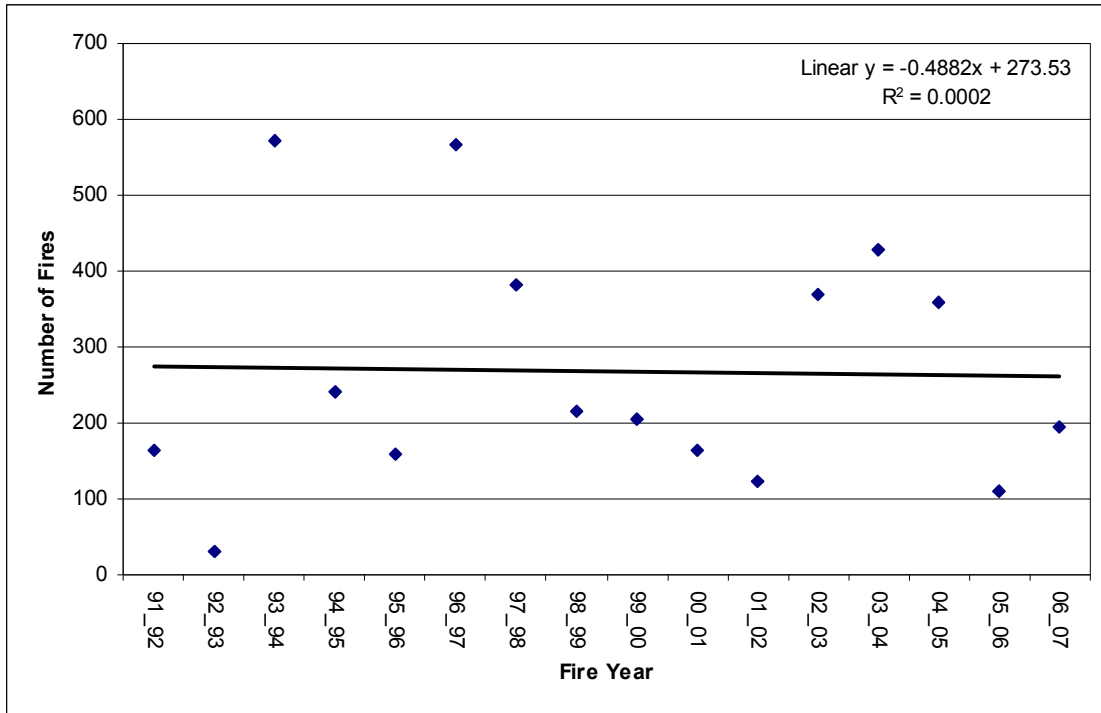


Figure A1. Auckland total annual number of fires from 1991/92 to 2006/07.

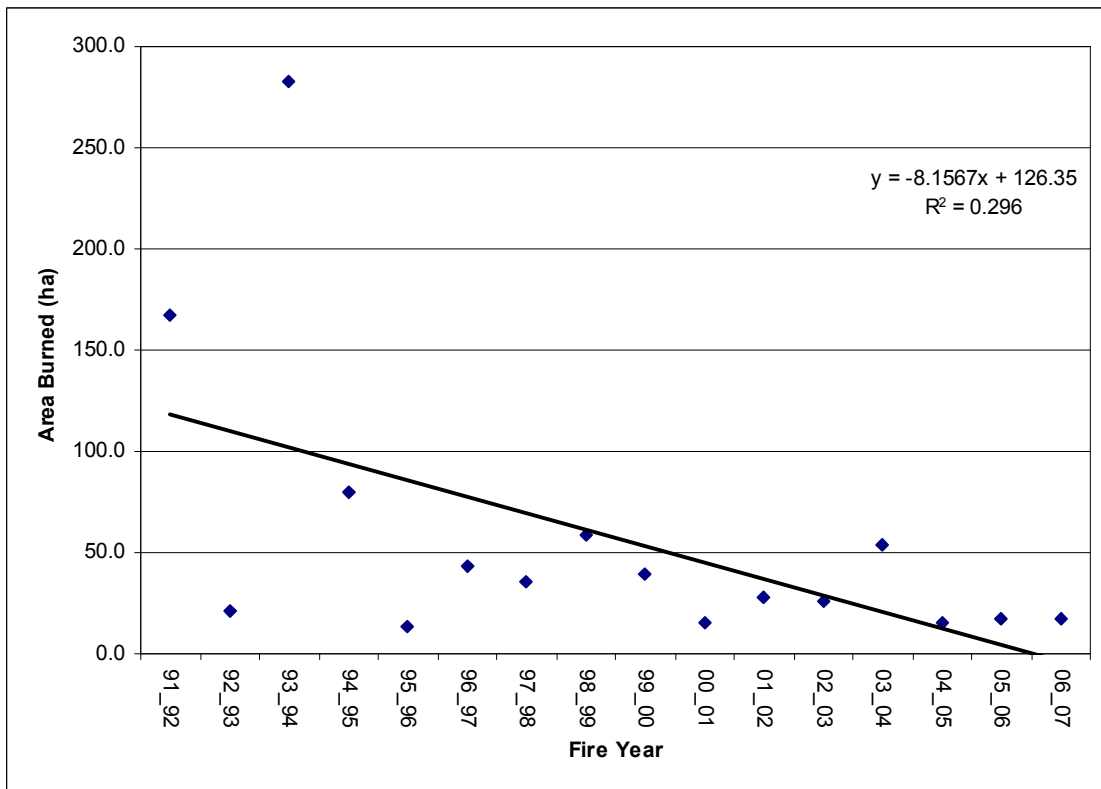


Figure A2. Auckland total annual area burned from 1991/92 to 2006/07.

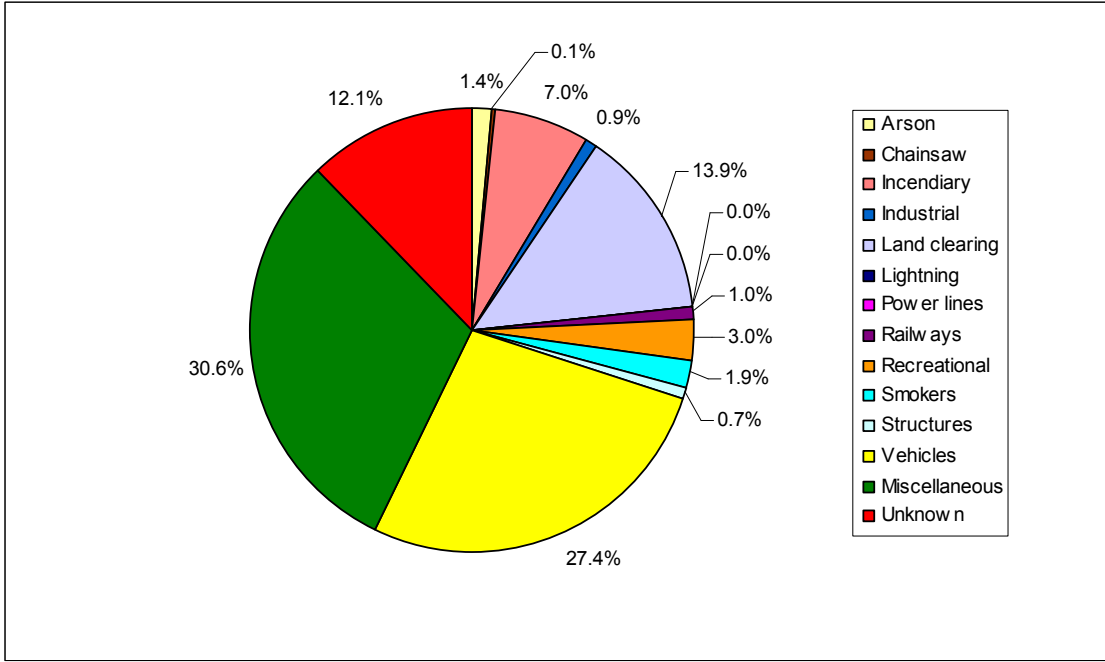


Figure A3. Auckland total number of fires by cause from 1991/92 to 2006/07.

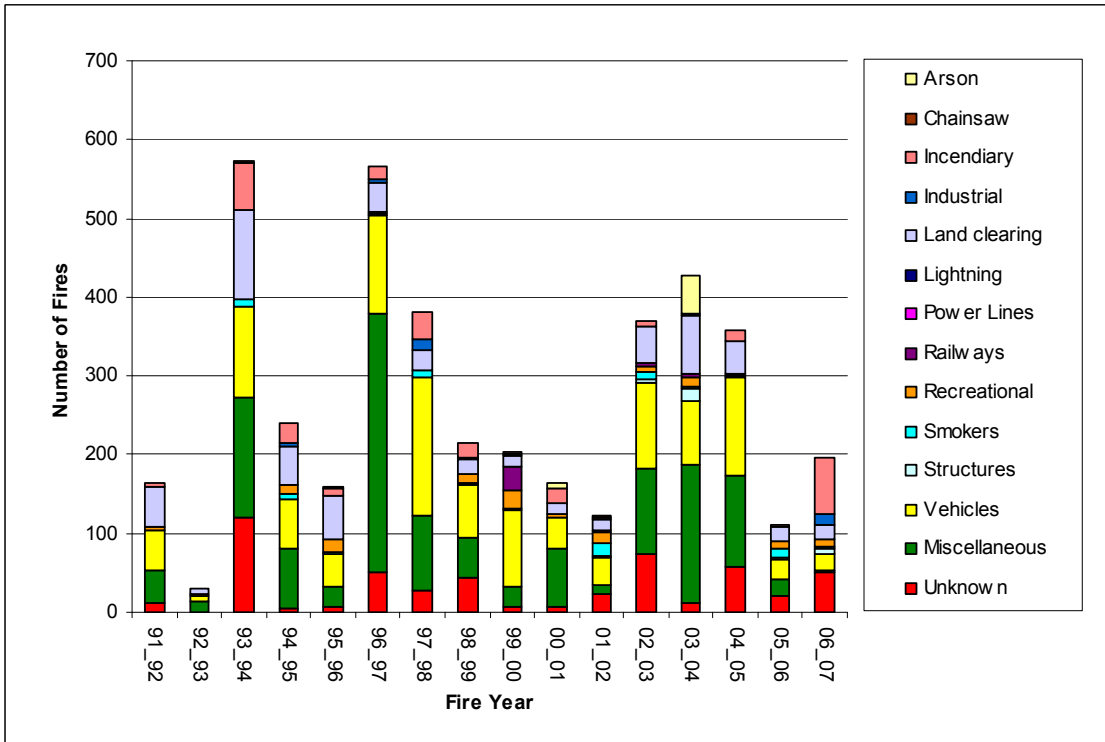


Figure A4. Auckland total number of fires by cause from 1991/92 to 2006/07.

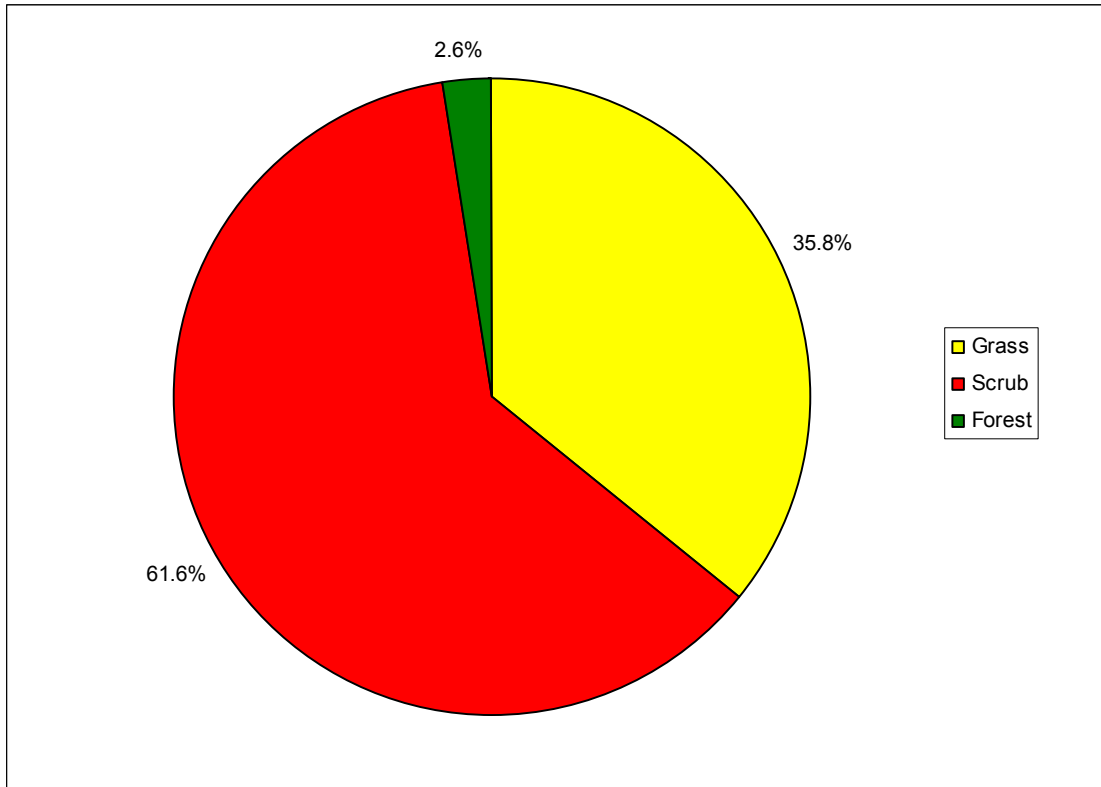


Figure A5. Auckland total area burned by fuel type from 1991/92 to 2006/07.

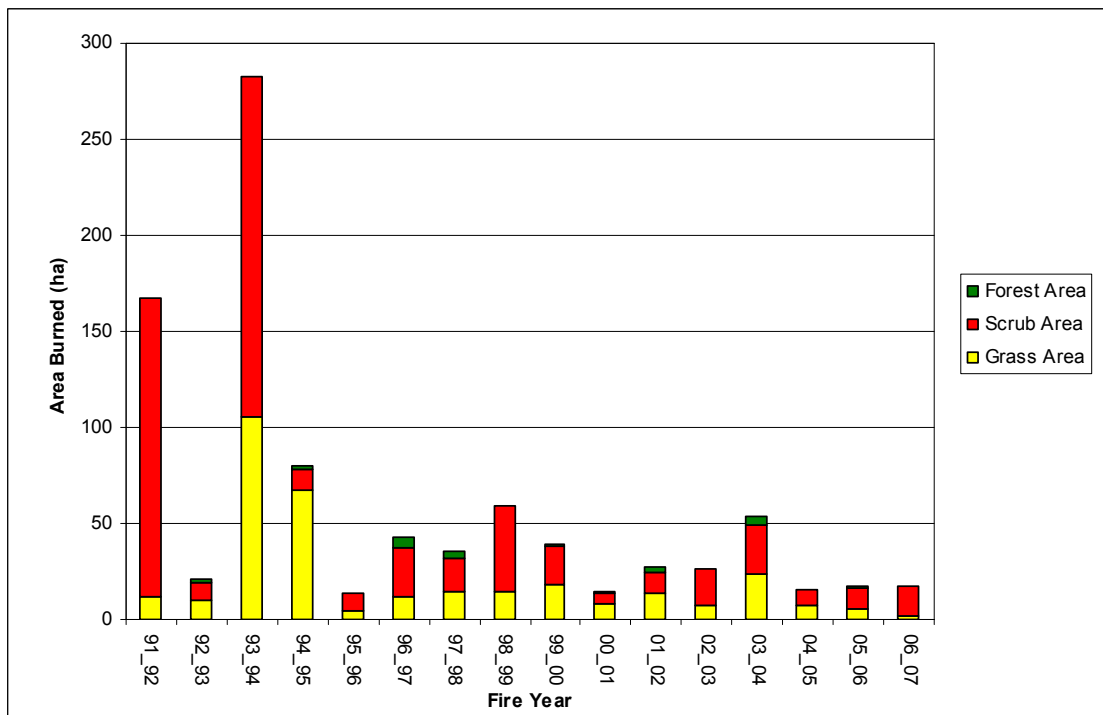


Figure A6. Auckland total area burned by fuel type from 1991/92 to 2006/07.

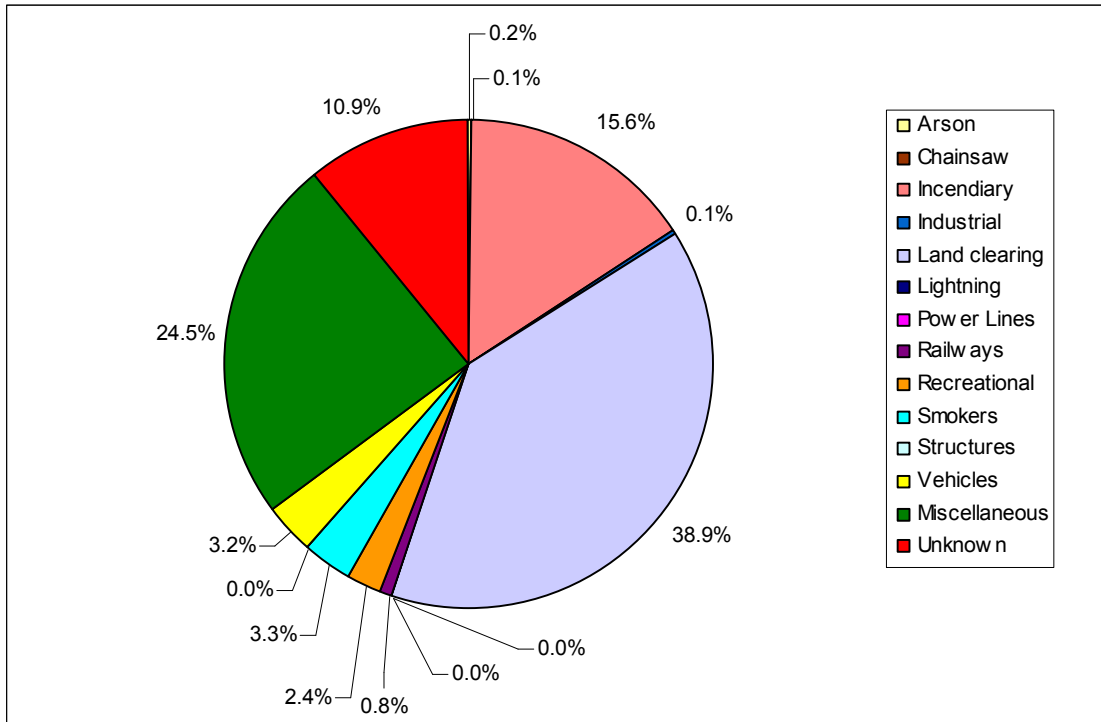


Figure A7. Auckland total area burned by cause from 1991/92 to 2006/07.

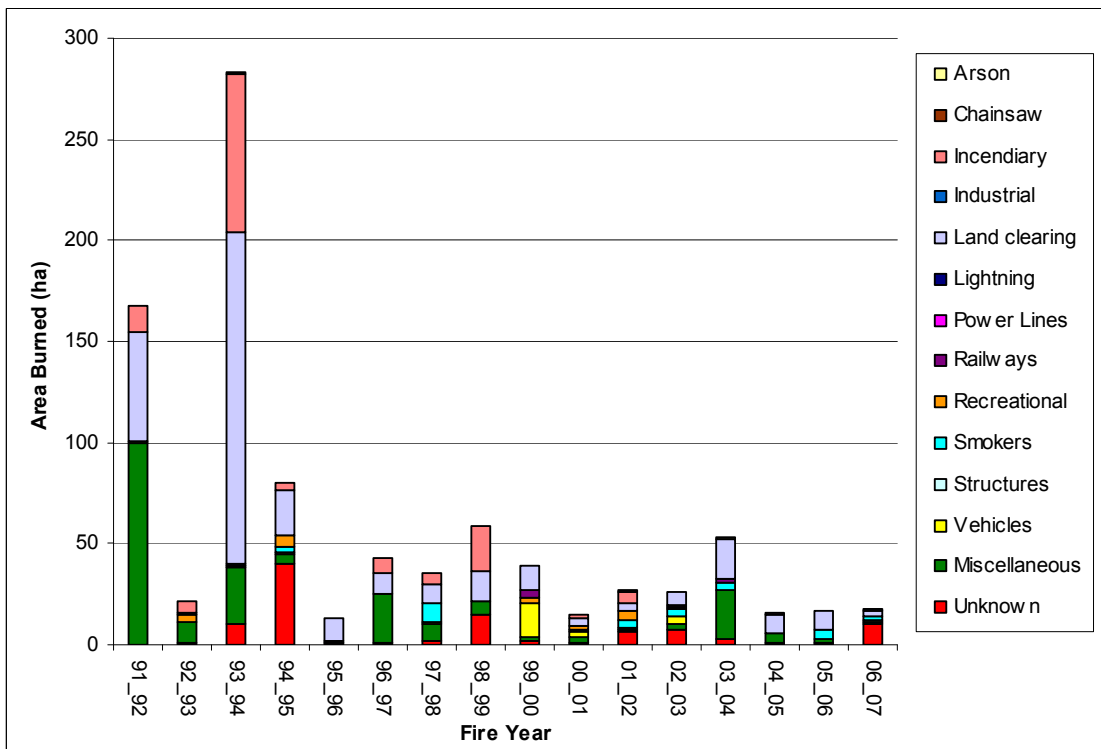


Figure A8 .Auckland total area burned by cause 1991/92 to 2006/07.

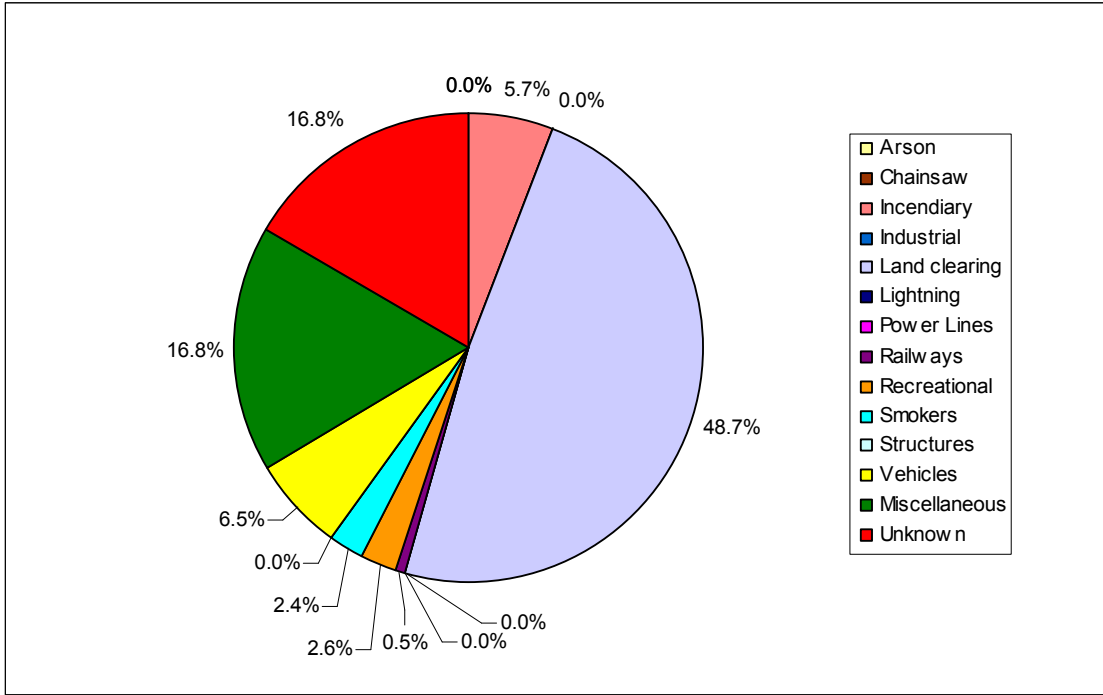


Figure A9. Auckland average total grass area burned by cause from 1991/92 to 2006/07.

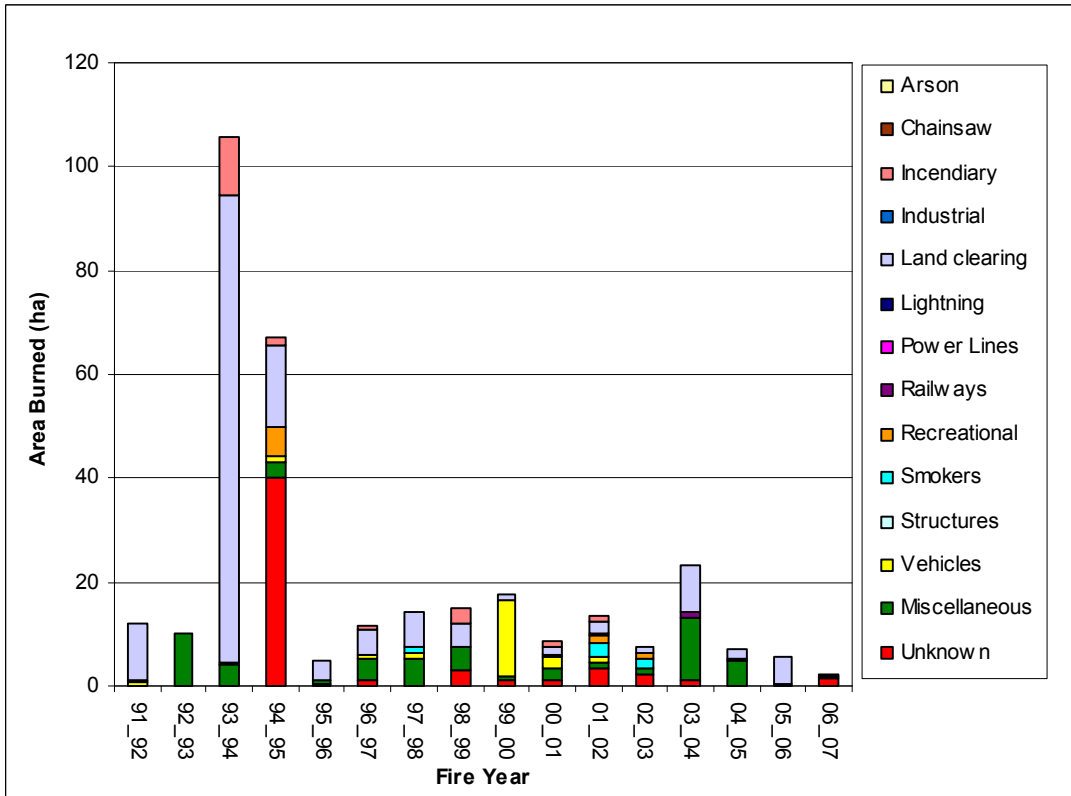


Figure A10. Auckland total grass area burned by cause from 1991/92 to 2006/07.

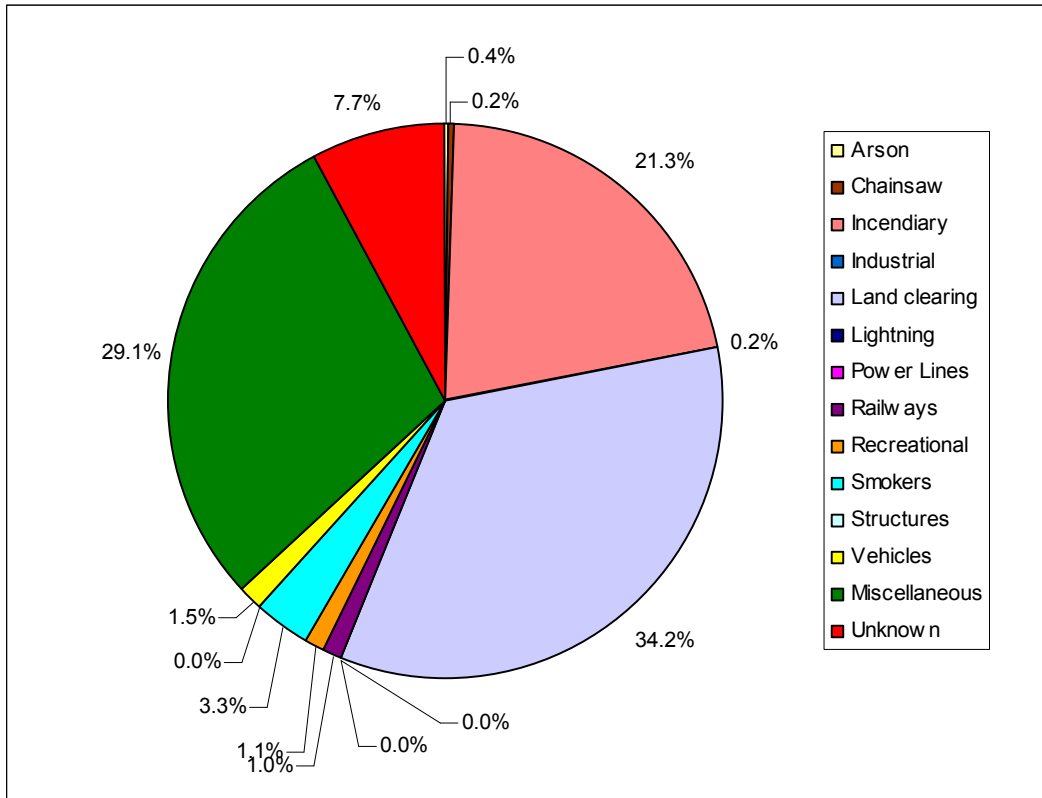


Figure A11. Auckland average total scrub area burned by cause from 1991/92 to 2006/07.

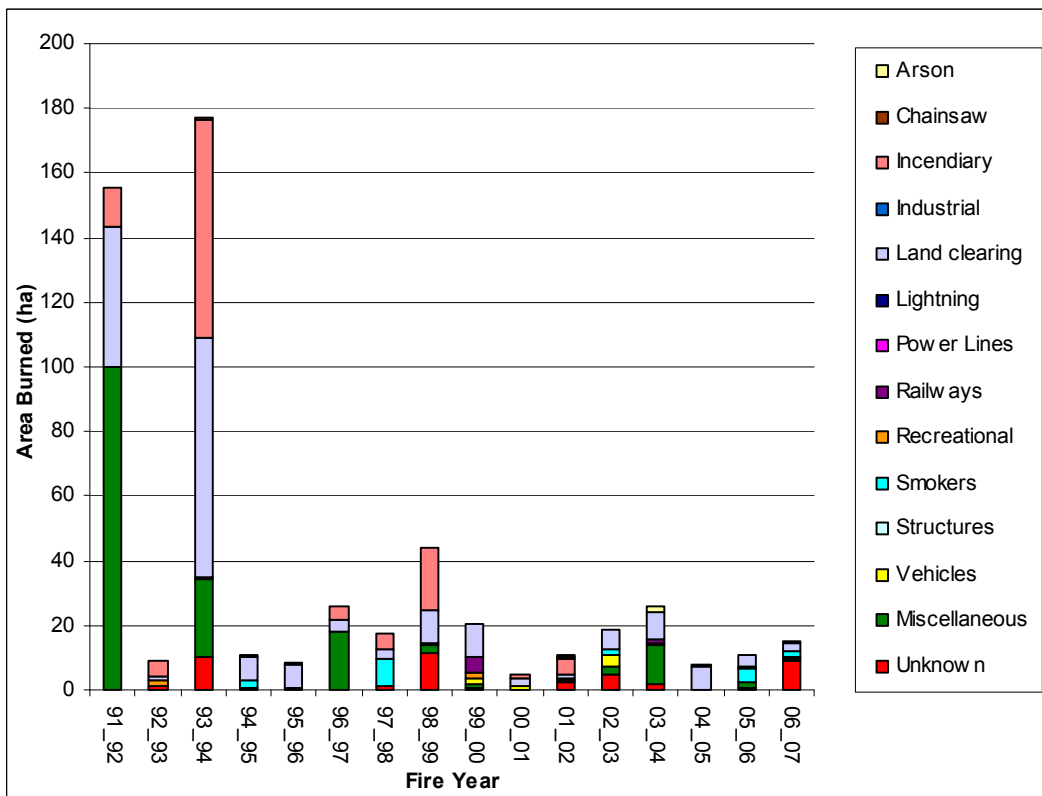


Figure A12. Auckland total scrub area burned by cause from 1991/92 to 2006/07.

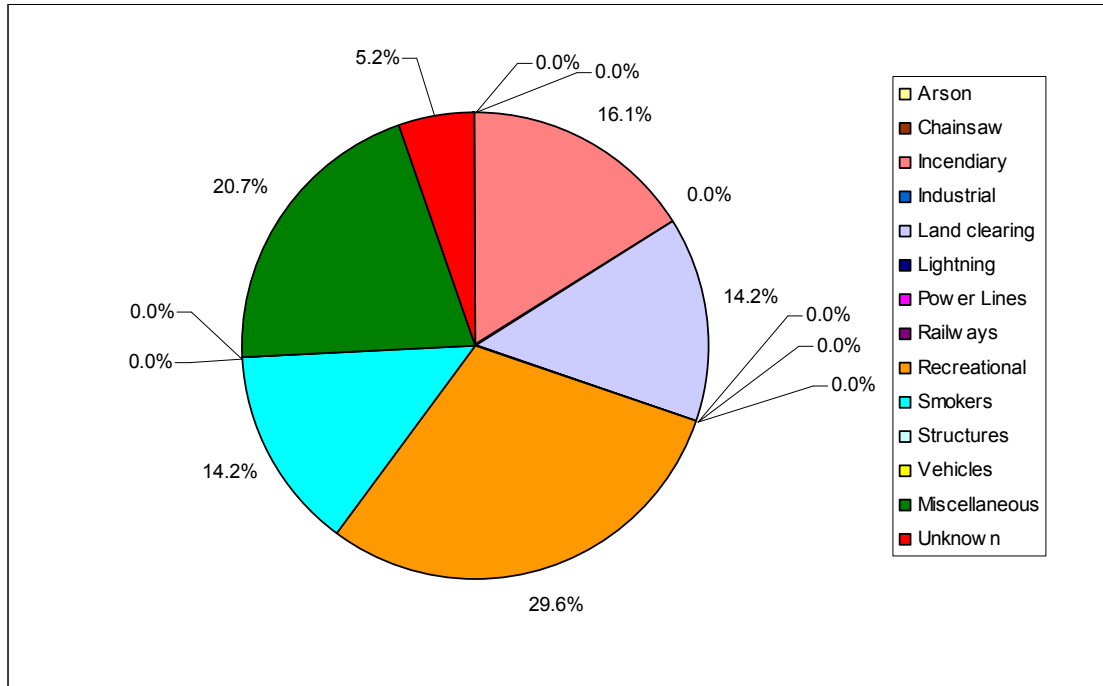


Figure A13. Auckland average total forest area burned by cause from 1991/92 to 2006/07.

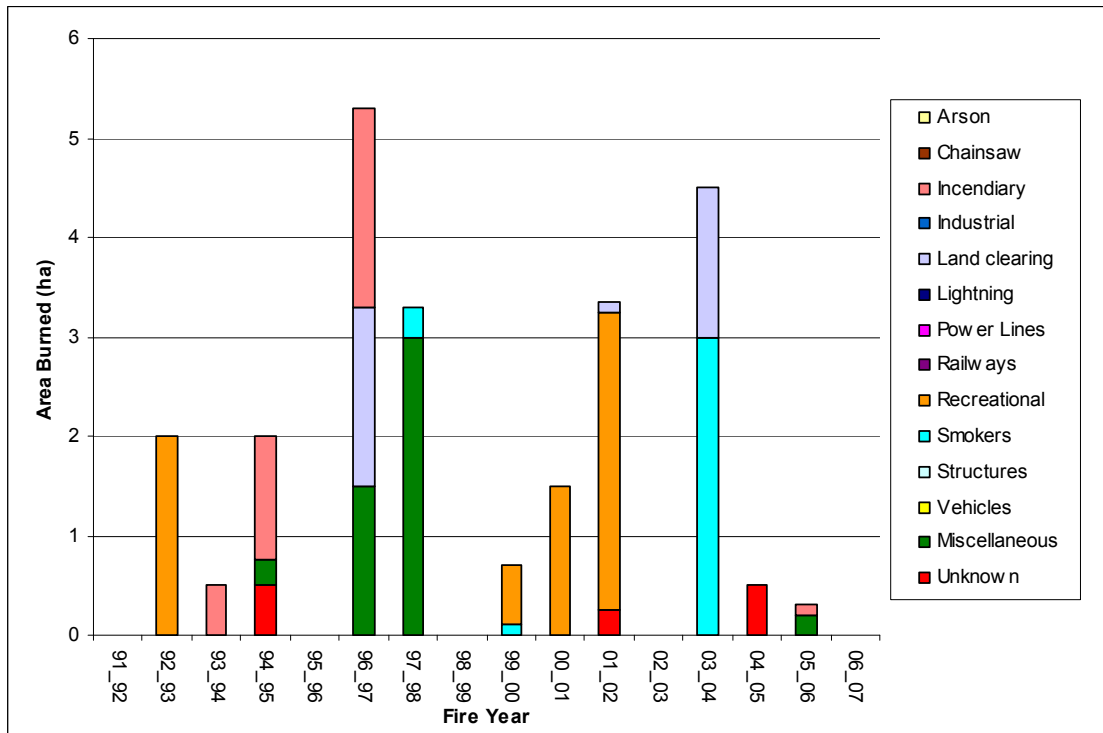


Figure A14. Auckland total forest area burned by cause from 1991/92 to 2006/07.