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Affaires indiennes et du Nord Canada
Rapport 1998 des pertes
causées par les incendies

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Elliot Rodger (819) 997 8267

fax: (819) 953 9395

Internet: rodgere@inac.gc.ca

The front cover shows the winning poster in the 1999 National Fire Protection Poster Contest for children grade 7 and up by Irena Denny, Grade 7, Eskasoni Elementary and Junior High School, Eskasoni First Nation, Nova Scotia.

Indian and Northern Affairs Canada

Fire Loss Report

1998

Prepared for:
Indian and Northern Affairs Canada
by:
Real Property Services for INAC, Headquarters
Public Works and Government Services Canada

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1.0 INTRODUCTION

This report provides fire loss statistics in First Nation communities for the 1998 calendar year along with comparative information from previous years. Data has been interpreted and analysed in a manner consistent with previous years' reporting methods. It should be emphasized that the data is based only on information reported by participating First Nations.

Statistical information is presented in graph and tabular form and comparisons are made with fire loss statistics of earlier years to show trends. Fire losses associated with the forestry, mining, oil and gas industries are excluded from this report.

In summary, the 1998 statistics were as indicated in the following table:

Category	Number	% Change over last year	% Change over last 10 year average
Deaths	6	- 76%	-71%
Injuries	33	-27 %	+31%
Value of losses	\$10,944,651	- 5%	+1%

While there is a significant improvement in the number of deaths and injuries caused by fire in 1998 over previous years, this may not be a sustained improvement based on preliminary reports for 1999.

2.0 DEATHS AND INJURIES

In 1998 6 reserve residents (1 child and 5 adults) died in fires. This total was down significantly from 25 in 1997 (9 children and 16 adults). Reported fire injuries decreased to 33 (7 children and 26 adults) from the 45 (7 children and 38 adults) reported in 1997.

The 1998 fire death rate in First Nation communities, expressed as the number of deaths per 100,000 population, was 1.7. This is the lowest figure since records have been kept. The rate has generally been declining, except for sharp increases in 1988 and 1993. The 1998 rate is more in line with the Canadian 10 year national average of 1.52, which is considered high among first world countries.

Over the past 20 years there has been a reduction in the fire death rate in First Nation communities. There is, however, a gradual levelling off in the rate. Nevertheless, the improvement in this year's losses should not allow for complacency, as preliminary reports for 1999 indicate a return to higher losses. As in previous years most deaths occur in dwellings.

Figure 1 shows the annual fire death rate over the last 20 years. During this period, the death rate has fluctuated but, on average, it has decreased by approximately 11% per year.

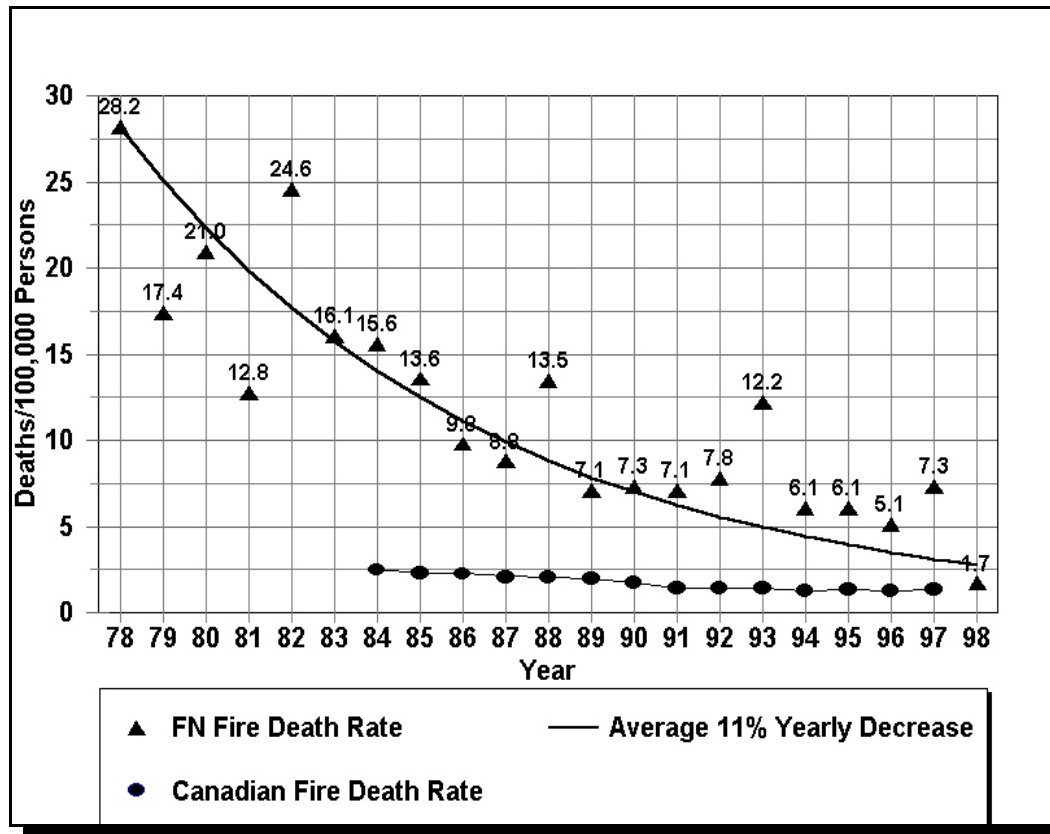


Figure 1. Fire Death Rate in FN Communities (1978-98).

Table 1 provides breakdowns by year, showing the number of reported fire related deaths and reported fire injuries for children and adults, over the period 1978 to 1998.

Table 1. Reported FN Fire Deaths and Injuries

Year	Fire Deaths			Fire Injuries		
	Adults	Children	Total	Adults	Children	Total
1978	21	34	55	14	3	17
1979	25	9	34	15	5	20
1980	27	14	41	9	7	16
1981	17	8	25	7	3	10
1982	30	18	48	17	10	27
1983	22	16	38	13	2	15
1984	28	10	38	10	4	14
1985	28	6	34	8	4	12
1986	17	9	26	8	6	14
1987	13	10	23	18	1	19
1988	15	22	37	22	13	35
1989	15	4	19	17	7	24
1990	16	4	20	24	7	31
1991	14	6	20	11	4	15
1992	16	7	23	19	4	23
1993	18	19	37	11	9	20
1994	13	6	19	14	6	20
1995	13	7	20	22	5	27
1996	11	6	17	9	5	14
1997	16	9	25	38	7	45
1998	5	1	6	26	7	33

Figures 2 and 3 display this same information in bar graph form.

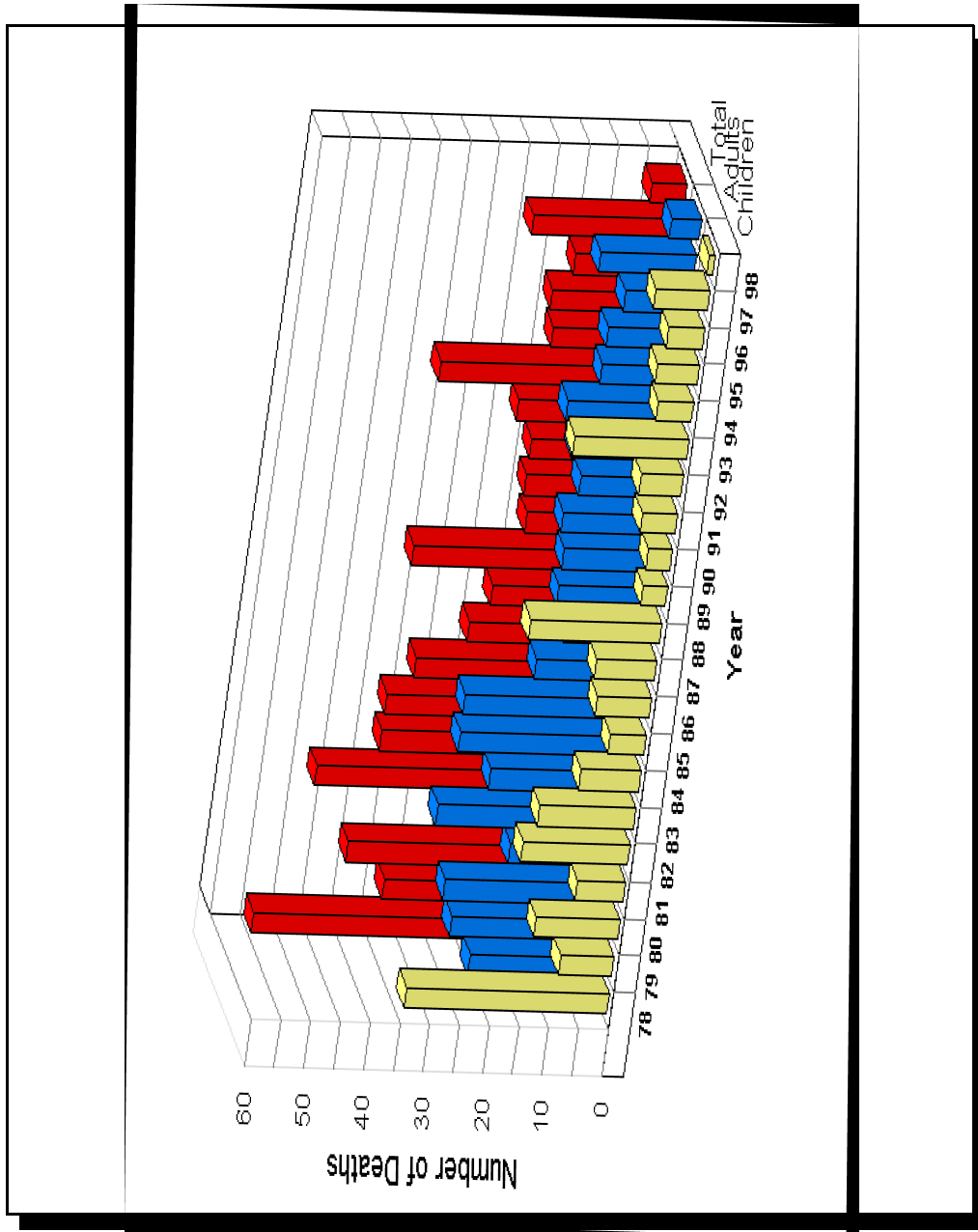


Figure 2. Reported Fire Deaths (1978-98).

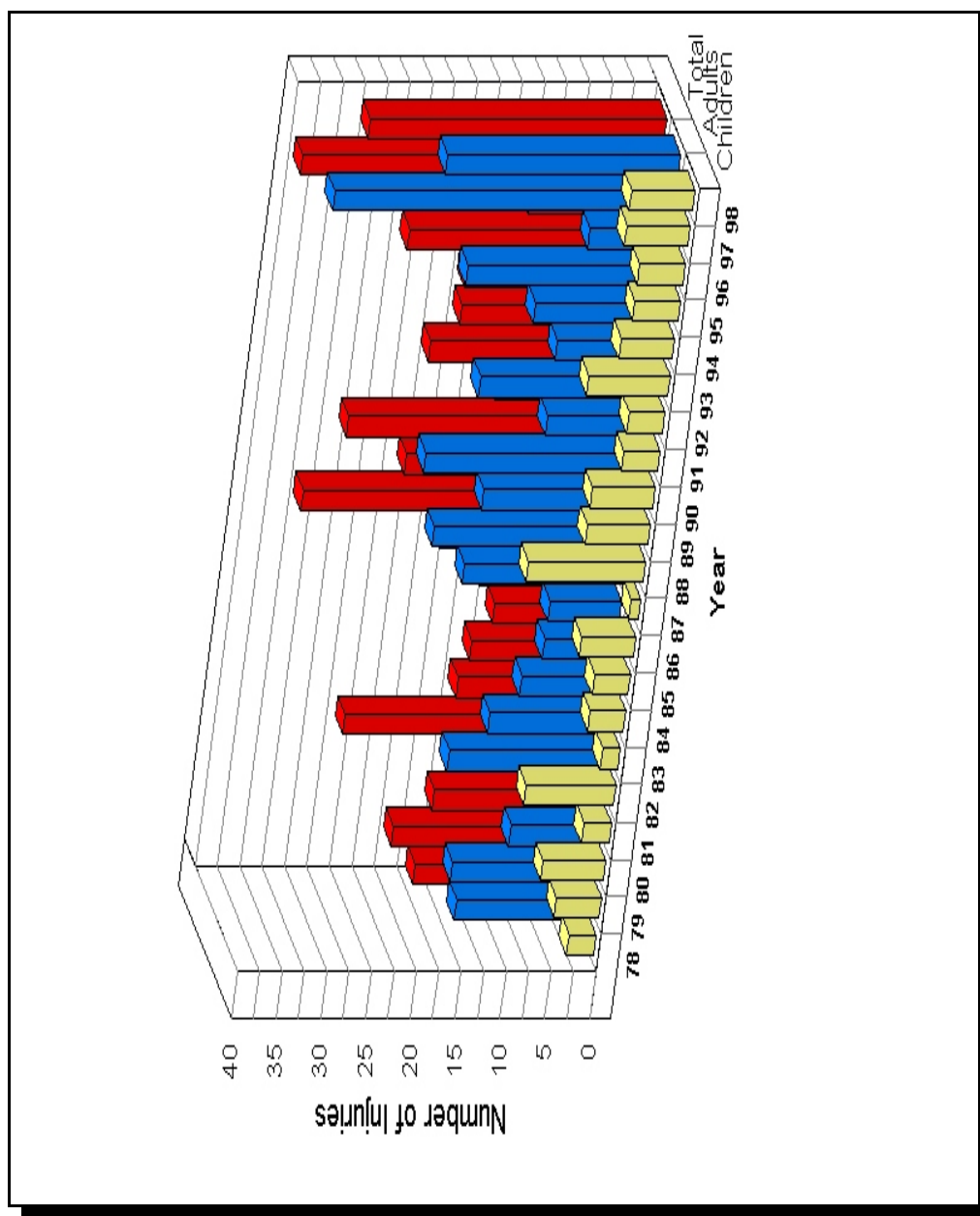


Figure 3. Reported Fire Injuries (1978-98)

Table 2 provides information on the number of responses, the number of fires, the estimated value of property loss, the number of injuries to adults and children, and the number of deaths of adults and children by province for 1998.

Table 2.
Reported Fire Losses
Summary by Province/Territory.

Province	No. of reported responses <small>*see note</small>	No. of reported fires	No. of reported fires with financial losses	Estimated value of losses	Injuries		Deaths	
					Adult	Child	Adult	Child
Newfoundland	0	0	0	\$0	0	0	0	0
New Brunswick	14	14	14	\$328,500	1	0	0	0
Nova Scotia	18	18	18	\$408,100	0	0	0	0
PEI	3	3	3	\$22,000	0	0	1	0
Quebec	114	114	14	\$110,700	0	0	0	0
Ontario	1197	101	51	\$1,549,165	5	1	1	0
Manitoba	233	233	45	\$2,439,202	7	2	0	1
Saskatchewan	42	42	42	\$1,357,500	3	0	1	0
Alberta **	100	100	94	\$4,092,894	8	4	0	0
British Columbia	60	40	17	\$413,000	2	0	2	0
Yukon	5	5	5	\$223,590	0	0	0	0
TOTALS	1786	670	303	\$10,944,651	26	7	5	1

* A "response" is where a fire department is called out to an incident that may or may not involve a fire or any financial loss. The level of detail of reporting varies. Some First Nations report all "responses" including false alarms, vehicle accidents, grass fires etc. while others report only fires involving financial loss.

** Fire statistics for Alberta have been supplied by the Fire Commissioner's Office, Alberta Labour. They exclude grass, brush and forest fires.

3.0 REPORTED FIRES

There were 303 reported fires involving financial loss in 1998. Of this total, 271 involved dwellings.

The method by which the number of fires are reported each year varies with FN, Tribal Council, and Region. As a consequence, the reported fire loss summary shows the number of responses, as well as the number of reported fires involving financial loss. Some FN's do not report responses, while others report in insufficient detail to allow an assessment to be made.

The number of reported fires involving financial loss between 1978 and 1998 are shown graphically in Figure 4. The number dropped from 313 in 1997 to 303 in 1998, while the number of reported responses was 1176 and 1786, respectively. The winter of 1998 was unusual in parts of Ontario and Quebec, with a severe ice storm that may have increased responses and incident reporting in those areas.

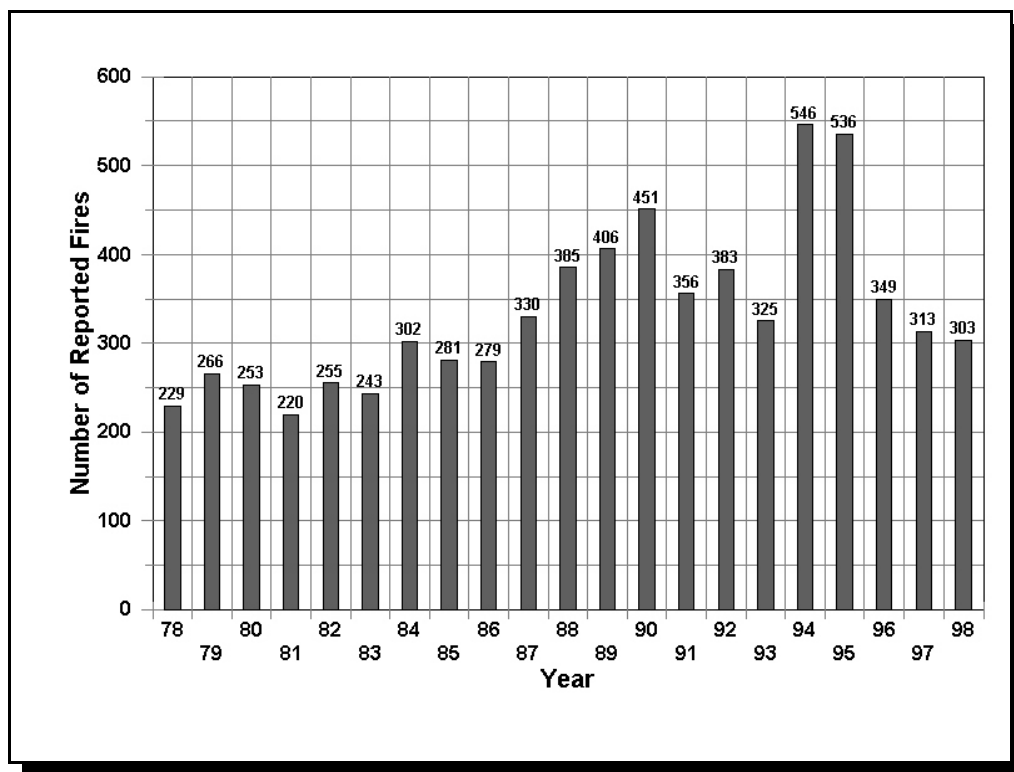


Figure 4. Number of Reported Fires (1978 - 1998).

4.0 PROPERTY LOSS

4.1 General Remarks

The fire losses in this report include buildings and their contents as well as other band, federal or private capital assets located in First Nation communities.

The total reported property loss due to fire in 1998 was estimated at \$10.9 million, down from \$11.5 million in 1997, which represents a decrease of 5%. This is primarily due to a decrease in the number of major fires. The increase in dwelling losses reported during 1998 was a 10% increase over the 1997 losses.

Figure 5 shows the trend in fire related property losses in constant 1998 dollars for the period 1988 to 1998. A breakdown of the 1998 reported fire losses by province can be found in Table 2 on page 7.

4.2 Dwellings

In 1998, 271 dwellings were reported to be damaged or destroyed by fire. This represents a decrease of 38 dwelling units from 1997. The estimated reported dwelling loss totalled \$7.25 million. The value of the reported dwelling losses over the past 10 years are shown in Figure 6.

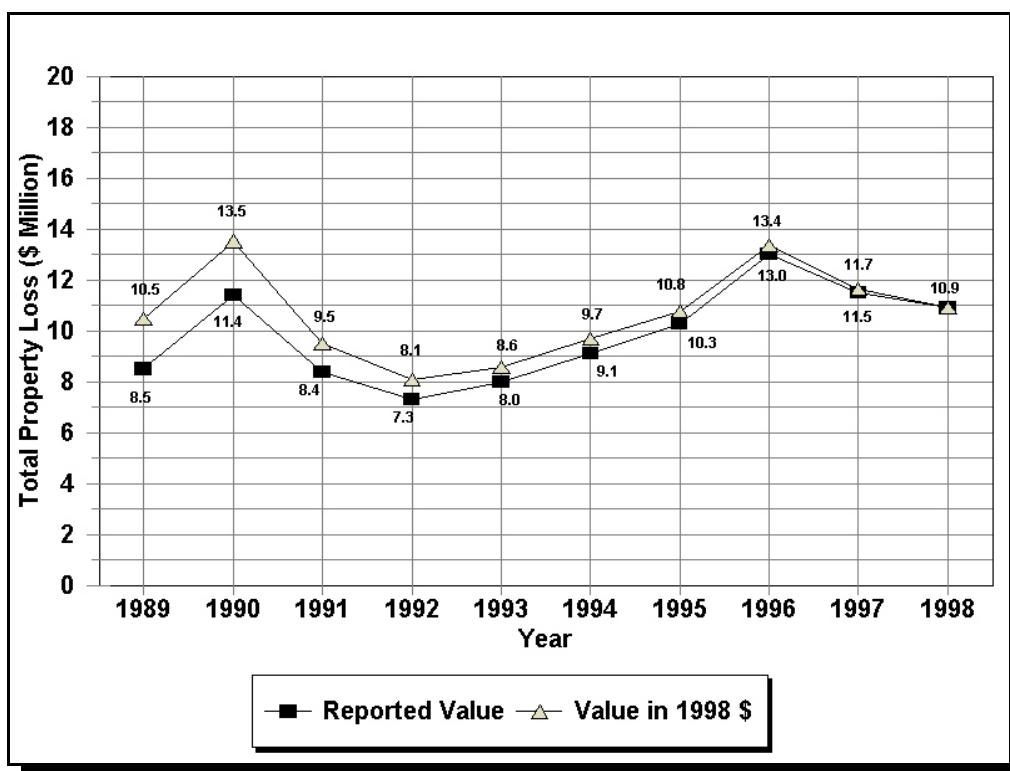


Figure 5. Total Reported Property Losses (1989 - 1998).

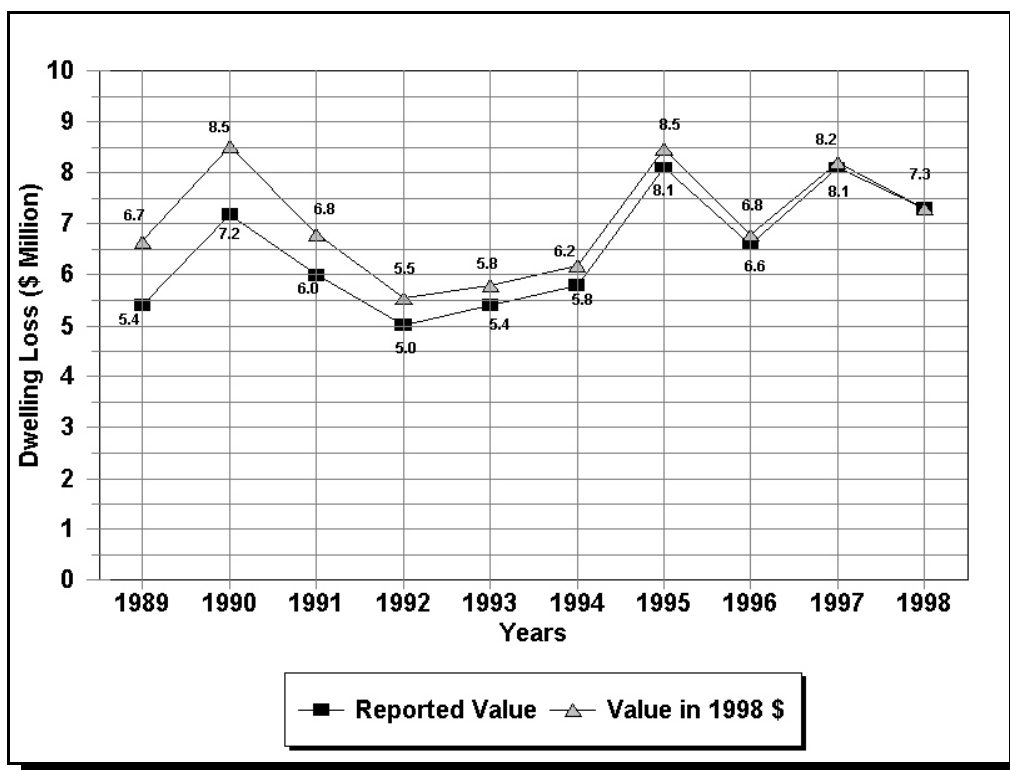


Figure 6. Total Reported Dwelling Losses (1989 - 1998).

4.3 Band and Federal Property

The reported band and federal property fire losses in 1998 are categorised as major and minor fires as follows:

Major fires (\$250,000 and above)

<u>No. of Incidents</u>	<u>Description</u>
2	Band Office
1	Community Centre
1	Auditorium

Minor fires (\$250,000 and below)

<u>No. of Incidents</u>	<u>Description</u>
3	Band office
8	Schools
1	Band Garage
1	Store/Warehouse
1	Amusement centre
1	Bridge

5.0 CAUSES OF FIRE

The predominant causes of fires in First Nation communities during 1998 were: grass, brush, and shrub fires; followed by arson and suspected arson; child related; electrical; heating; and cooking. There were a large number of fires with unknown causes.

The number of fires from 1993 to 1998 imputable to these causes are summarized in Table 3.

Table 3. Main Causes of Fires in 1993 - 1998.

Cause or Type of Fire	1993	1994	1995	1996	1997	1998
Grass/Brush/Shrub	26	142	126	96	182	238
Arson/Suspected Arson	37	35	22	56	75	64
Child Related	44	22	32	28	54	30
Electrical	40	40	36	43	42	32
Heating Equipment	31	54	33	34	42	28
Cooking	20	14	19	21	41	27

It must be emphasised that the level of detail of reporting varies greatly which results in large annual and regional disparities. Variations in reporting may also account for the large variation in the number of grass/brush/shrub fires from year to year.

Figure 7 compares occurrences of fire causes for 1998 with the average number of occurrences for the period 1993 to 1998.

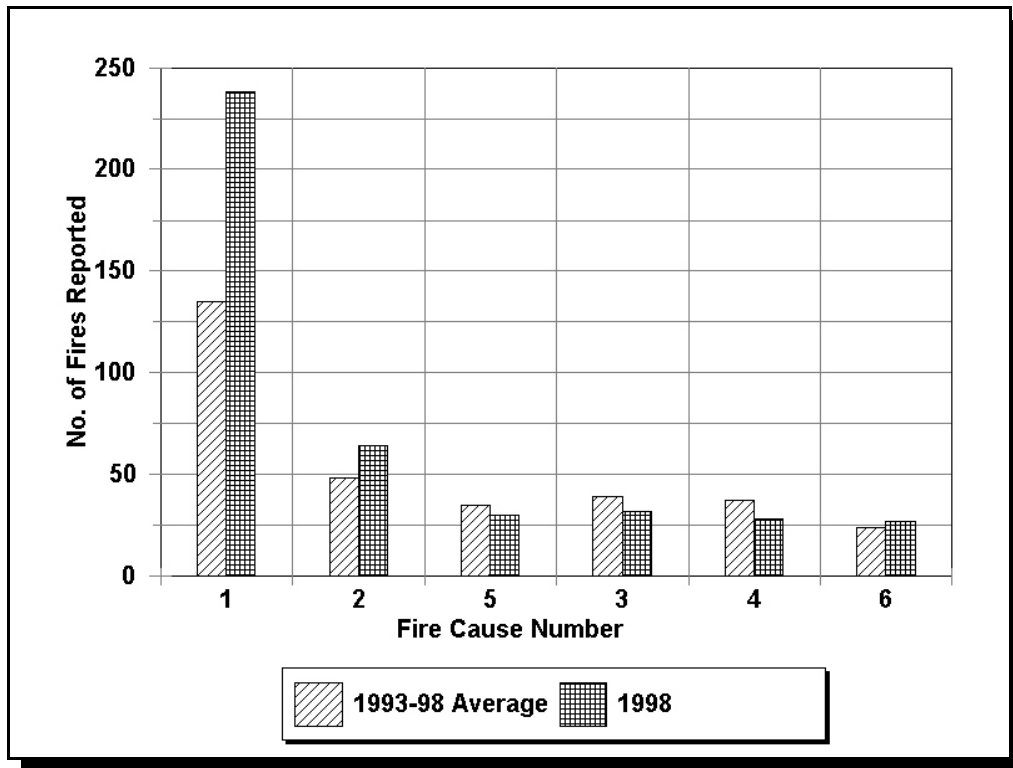


Figure 7. Comparison of Fire Causes.

The fire cause numbers are:

1. Grass/Brush/Shrub
2. Arson/Suspected Arson
3. Electrical
4. Heating equipment
5. Child related
6. Cooking