



Indian and Northern Affairs Canada

Fire Loss Report

2002

May 2004

Prepared for:
Indian and Northern Affairs Canada

by:
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Headquarters



Travaux publics et
Services gouvernementaux
Canada

Public Works and
Government Services
Canada

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Table of Contents

1.0	INTRODUCTION	1
2.0	DEATHS AND INJURIES	2
3.0	REPORTED FIRES	6
4.0	PROPERTY LOSS	7
4.1	General Remarks.....	7
4.2	Dwellings	7
4.3	Band, Federal and other Property	8
5.0	CAUSES OF FIRE	9

Cette publication est aussi disponible
en français sous le titre:

Affaires indiennes et du Nord Canada
Rapport 2002 des pertes
causées par les incendies

1.0 INTRODUCTION

This report provides fire loss statistics in First Nation communities for the 2002 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 on information reported by participating First Nations and, as a consequence, the report may not represent a complete picture. Assessing the proportion of First Nations reporting is difficult but, over the years, the level of participation has improved in some areas but not in others.

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 2002 statistics were as indicated in the following table:

Category	Number	% Change over last year	10 year average	% Change over 10 year average
Deaths	12	-8 %	19.3	-32 %
Injuries	52	+247 %	30	+173%
Value of losses	\$28 million	+205 %	\$12.5 million	+230%

The number of deaths caused by fire in 2002 was slightly less than the previous year. Compared to the 10-year average, the death total was significantly lower. The amount of injuries, however, increased significantly.

There was a large increase in property losses over last year due to a school fire in Fort Albany, Ontario, that caused 13 million dollars in damage. If this value is not considered, then the estimated value is approximately 15 million dollars. This value is relatively high compared with the 10-year average.

While arson appears to becoming an increasing problem, there are also a large number of fires of suspicious and undetermined origin.

There is an increasing propensity, on and off reserve, for local fire services to become involved as 'emergency responders' answering calls to assist with medical emergencies, car accidents, and the like. This leads to the reporting of fires becoming only a portion of the fire services responsibility and is reflected in the high number of 'reported responses' when compared with the number of reported fires.

2.0 DEATHS AND INJURIES

In 2002, 12 reserve residents (all adults) died in fires. This total was down from 13 in 2001 (1 child and 12 adults). Reported fire injuries increased to 52 (15 children and 37 adults) from the 21 (1 child and 20 adults) reported in 2001.

The 2002 fire death rate in First Nation communities, expressed as the number of deaths per 100,000 population, was 3.2. The rate has generally been declining, except for sharp increases in 1988 and 1993. The 2002 rate shows a slight decline but is still higher than the 1998 figure of 1.7. The rate is 2.5 times higher than the 1999 Canadian national average of 1.27 (the latest available figure), which is considered high among first world countries. The Canadian 10 year national average death rate is 1.36 deaths per 100,000 population.

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. As in previous years, most fire deaths occur in dwellings, meaning dwelling fires are more likely to result in death than other fires.

Figure 1 shows the annual fire death rate over the last 24 years. During this period, the death rate has fluctuated but, on average, it has decreased by approximately 8% per year.

Figure 1. Fire Death Rate in FN Communities

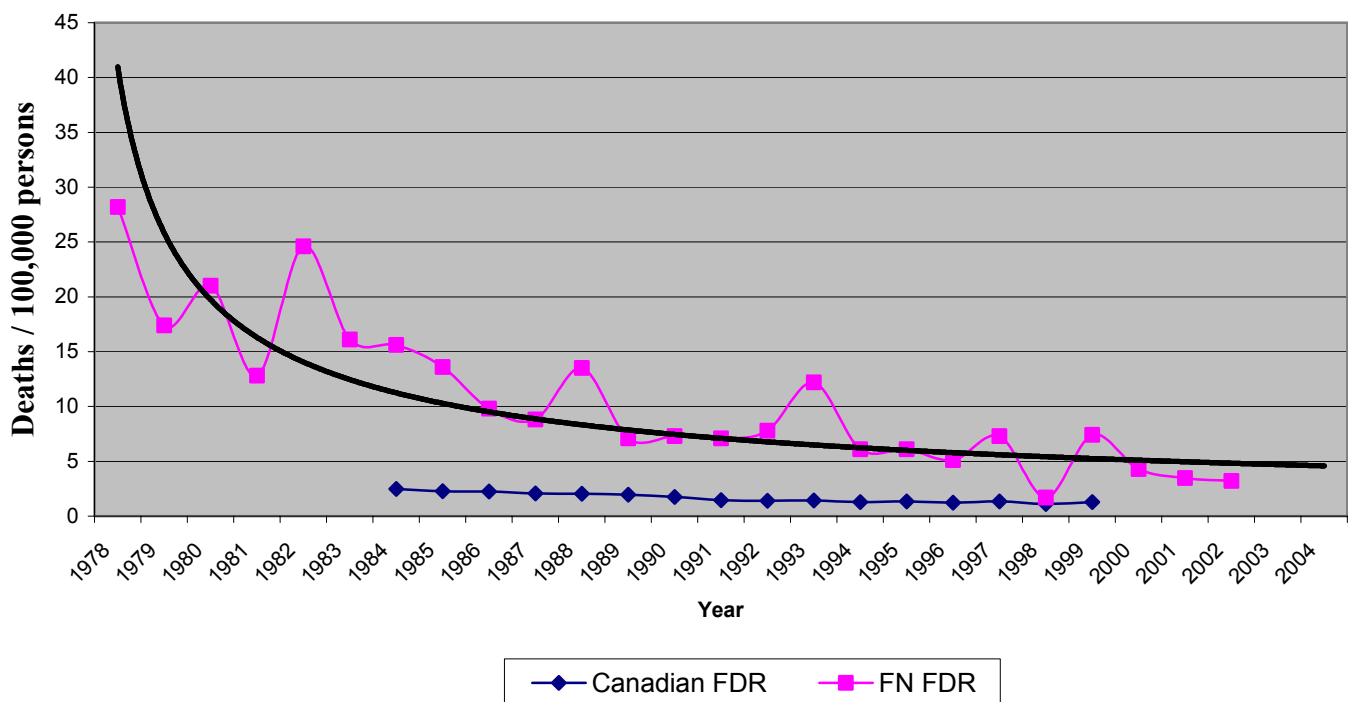


Table 1 provides breakdowns by year, showing the number of reported fire related deaths and reported fire injuries for children and adults, over the period 1978 to 2002.

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
1999	15	12	27	27	11	38
2000	9	7	16	27	3	30
2001	12	1	13	20	1	21
2002	12	0	12	37	15	52

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

Figure 2. Reported Fire Deaths (1978-2002)

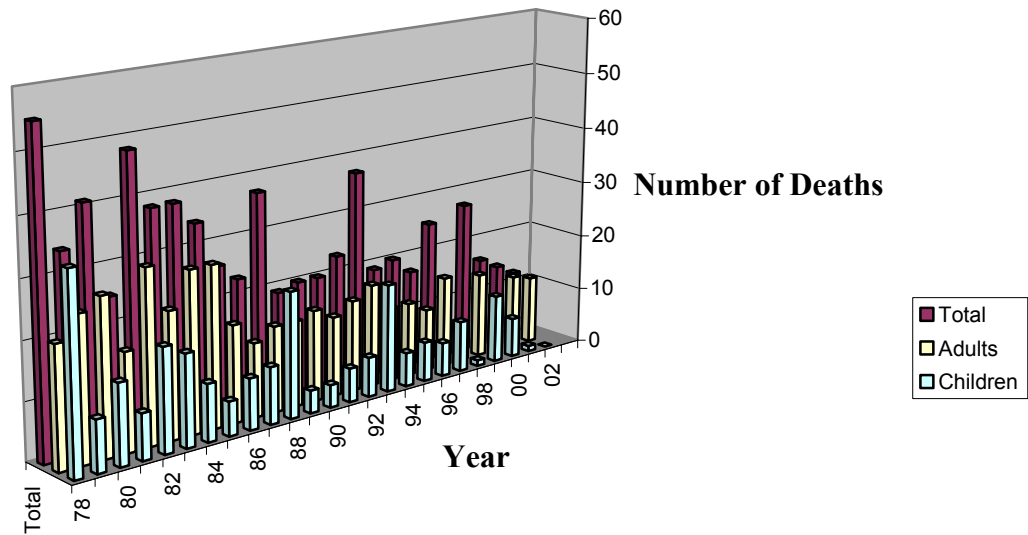


Figure 3. Reported Fire Injuries (1978-2002)

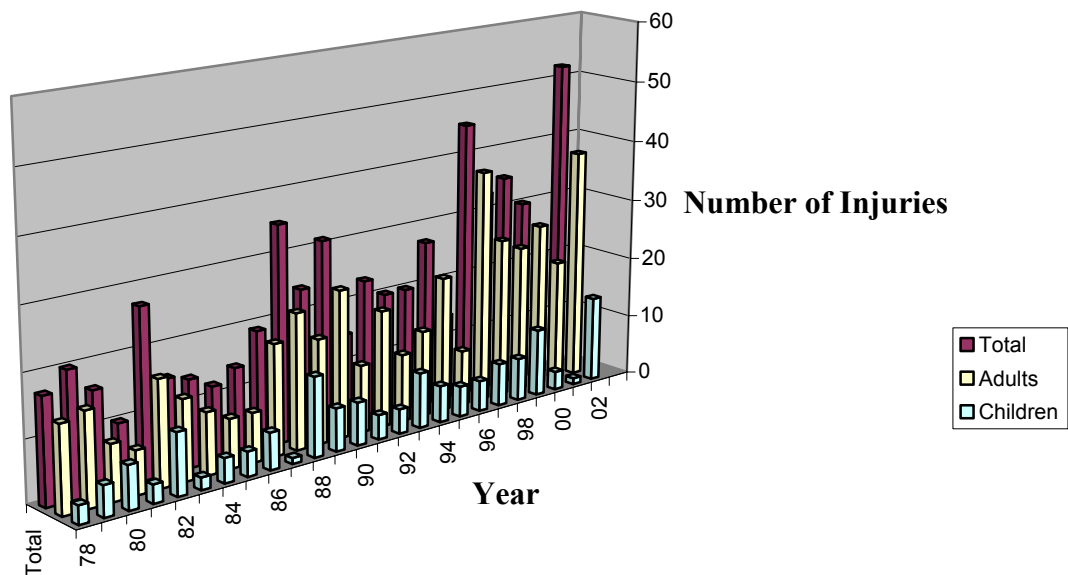


Table 2 provides information on the number of reported responses, the number of reported fires, the estimated property loss, the number of injuries to adults and children, and the number of deaths of adults and children by province for 2002.

**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 property losses	Injuries		Deaths	
					Adult	Child	Adult	Child
<i>Newfoundland</i>	1	1	1	\$30,000	0	0	0	0
<i>New Brunswick</i>	16	16	16	\$2,030,500	0	0	0	0
<i>Nova Scotia</i>	12	12	19	\$284,300	1	2	2	0
<i>PEI</i>	0	0	1	\$0	0	0	0	0
<i>Quebec</i>	23	23	23	\$2,337,900	1***	1***	1	0
<i>Ontario ****</i>	1060	210	210	\$15,315,662	14	2	2	0
<i>Manitoba</i>	456	400	23	\$1,727,500	1	0	3	0
<i>Saskatchewan</i>	19	19	19	\$1,142,200	0	0	0	0
<i>Alberta **</i>	126	126	99	\$3,396,636	3	2	2	0
<i>British Columbia</i>	113	101	39	\$1,516,100	17	8	2	0
<i>Yukon</i>	0	1	1	\$100,000	0	0	0	0
TOTALS	1826	909	451	\$27,880,798	37	15	12	0

* **The level of detail of reporting varies.** A "response" is where a fire department is called out to an incident that may or may not involve a fire or financial loss. 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. A \$4.1 million fire at a private facility, the Winalta trailer factory on Enoch FN, has been excluded from the Alberta First Nation statistics.

*** Not specified whether injuries were adult or children, assumed 1 adult and 1 child.

**** School fire in Fort Albany accounted for \$13 million of \$15.3 million total.

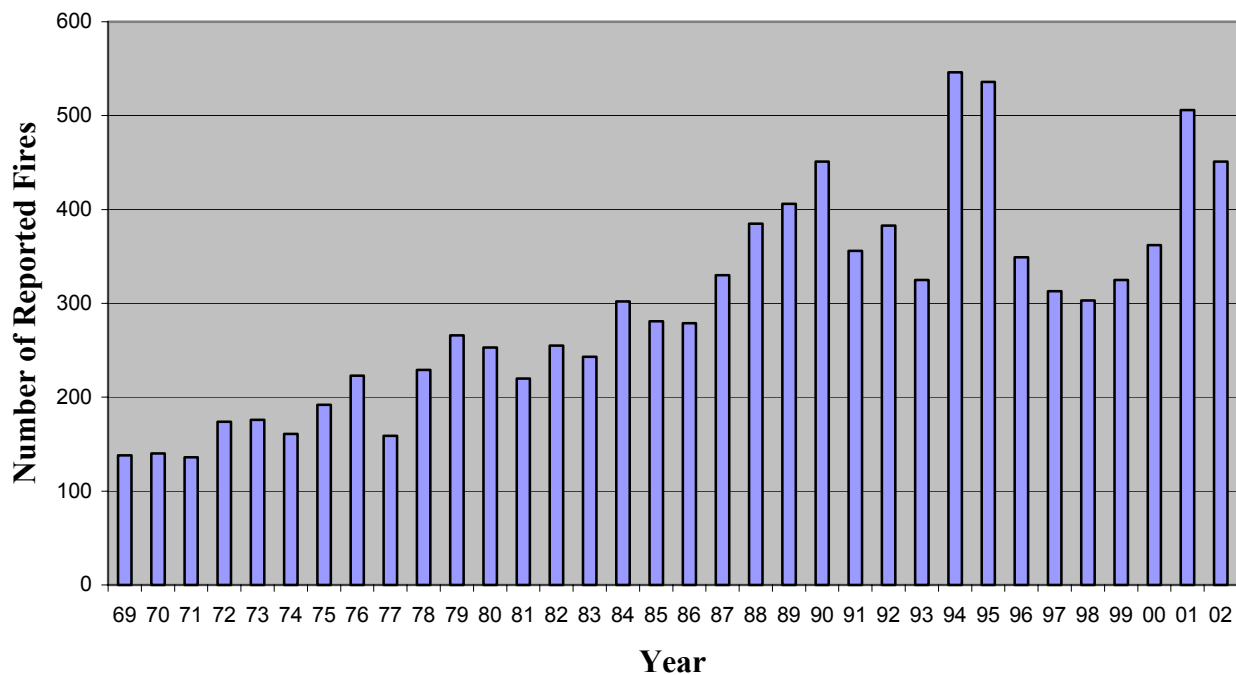
3.0 REPORTED FIRES

There were 909 reported fires in 2002, 451 involving financial loss. Of this total, 290 were dwellings.

The method by which fires are reported each year varies with First Nation, 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, and the number of reported fires involving financial loss. Not all First Nations report responses, while others report in insufficient detail to allow an assessment to be made. The number of First Nations reporting is not improving. It is difficult to assess whether this is because there are no fires or First Nations do not wish to report.

The number of reported fires involving financial loss between 1969 and 2002 is shown graphically in Figure 4. The number decreased from 506 in 2001 to 451 in 2002, while the number of reported responses was 3,266 and 1,826, respectively.

**Figure 4. Number of Reported Fires with Financial Losses
(1969-2002)**



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 2002 was estimated at \$28 million, a significant increase over previous years. However, nationally there were less major fire loss incidents this year.

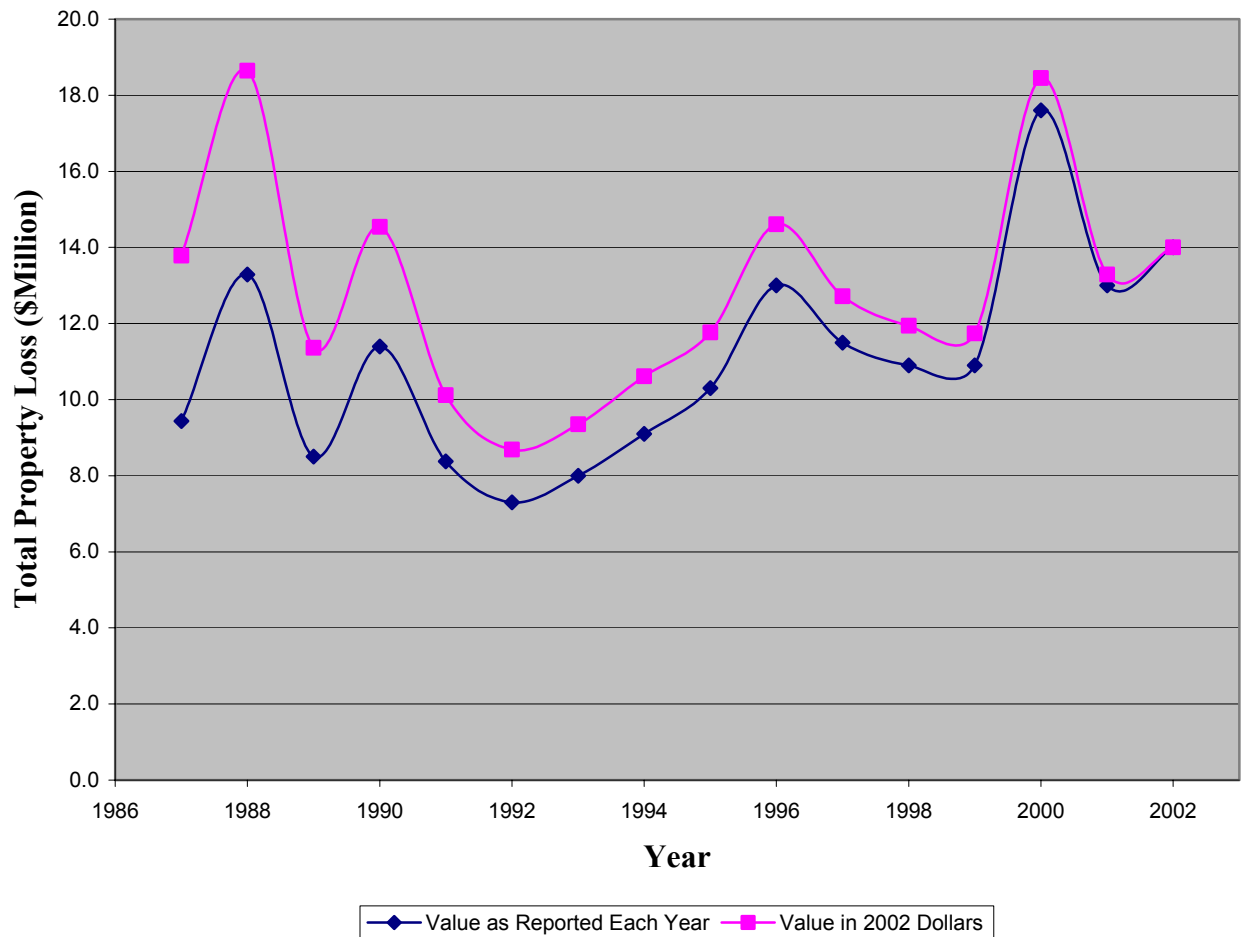
4.2 Dwellings

As can be seen from Table 3, 290 dwellings were reported to be damaged or destroyed by fire. This represents a decrease of 118 dwelling units from 2001. The estimated value of reported dwelling losses totalled \$7.8 million, representing a 165% decrease. The value of the reported dwelling losses over the past 15 years is shown in Figure 5.

Table 3
Reported Dwelling Losses by Region

Province	Number of dwellings damaged or destroyed	Estimated value of dwelling losses
Newfoundland	1	\$30,000
New Brunswick	13	\$525,000
Nova Scotia	11	\$194,300
PEI	0	\$0
Quebec	23	\$837,900
Ontario	107	\$1,803,535
Manitoba	41	\$346,250
Saskatchewan	11	\$396,700
Alberta	54	\$2,183,000
British Columbia	28	\$1,439,550
Yukon	1	\$100,000
TOTALS	290	\$7,856,235

Figure 5. Total Reported Property Losses (1987 - 2002)



4.3 Band, Federal and other Property

The reported fire losses categorized as major fires in 2002 are detailed below. It has not been possible to distinguish between First Nation property losses and “private” property losses at this level of reporting.

Major fires (\$250,000 and above)

Atlantic Region

Indian Island, N.B. – Recreation centre estimated value at \$1,600,000.

Ontario Region

Fort Albany – School estimated value \$13,000,000.

Manitoba Region

Pauingassi – School estimated value \$1,000,000.

5.0 CAUSES OF FIRE

The predominant causes of fires in First Nation communities during 2002 were: grass, brush, and shrub fires; followed by arson and suspected arson; child related; electrical; heating; and cooking. Arson and suspected arson appears to be the cause of many fire losses. There were also many fires with unknown or unreported causes.

It must be emphasized that the level and detail of reporting varies greatly. This hinders a better understanding of the differences between causes, and may result in large annual inconsistencies. Variations in reporting may also account for the large difference in the number of grass/brush/shrub fires from year to year.