

**A Report to
Saskatchewan Environment and
Resource Management
regarding
Fire Awareness Study**

March, 2003

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EXECUTIVE SUMMARY

- ★ There is some awareness and understanding for provincial burning permits and the level of awareness is somewhat higher in the areas most likely affected. About one-third of the population appears to have a reasonably accurate understanding of these permits.
- ★ Most residents who use fire for constructive purposes take weather conditions (especially wind) into account but few give consideration to other factors.
- ★ One-in-four residents indicate that they carry wildfire insurance.
- ★ One-quarter of the province's population has taken some action to reduce the risk they face from wildfires: fire guards, clearing brush or cutting grass and weeds.
- ★ There is limited awareness as to who is responsible for the costs associated with suppressing a wildfire. The most common mention is the Provincial Government.
- ★ Three-quarters of the population builds campfires. This is more common among younger residents.
- ★ Most campfire builders will either use available facilities, establish the fire on suitable material or build pits for their campfire. Virtually all campfire builders either drown their fire or bury it in dirt or sand.
- ★ Saskatchewan Environment and Resource Management is the principal source of information on wildfire safety for residents. The Internet is a significant source of information, particularly for younger respondents.
- ★ Nearly one-half of the sample indicated they had noticed wildfire prevention information and the principal source for this information was television.
- ★ Only one-quarter of the population can identify the message delivered by Smokey the Bear. Awareness of this message falls significantly among older residents.
- ★ There were 35 percent of respondents who recalled fire prevention messages. Most of these were general in nature.

I. INTRODUCTION

Decision Research Inc. was commissioned by Saskatchewan Environment and Resource Management to conduct a study concerning fire safety awareness. The Department intends to undertake efforts to increase public awareness in the area of fire safety and the study is to serve as a baseline against which the effectiveness of these efforts can be assessed.

The study took the form of a random sample telephone interview survey. The sample consisted of residents of the forest and forest fringe area of northern Saskatchewan (green and orange areas on map facing) and residents from the balance of the province who engage in recreational activities in northern and north central Saskatchewan.

A copy of the questionnaire administered in the survey is attached, Appendix "A".

There were a total of 500 interviews completed with residents of the forest and forest fringe areas. This sample will have a precision (range of error factor) of ± 3.4 percent at a 95 percent level of confidence (19 out of 20 times).

There were 300 interviews completed with qualified respondents resident in southern Saskatchewan. This sample will have a precision of ± 4.6 percent at a 95 percent level of confidence for the population as a whole and a greater degree of precision for only those who undertake recreational activities

Qualification of southern residents was determined by the responses to the two initial screening questions appearing on the questionnaire.

A complete set of the data tables arising from this survey has been forwarded to SERM electronically. Selected top-line data appears in Appendix "B".

The survey was administered over the period of March 6th to March 20th, 2003. Interviewing in those areas affected by the March 17th by-election, including all of the city of Saskatoon, were conducted after that date.

II. SAMPLE CHARACTERISTICS

There were 402 males (50.3%) and 397 females (49.7%) interviewed in this survey.

The sample obtained from interviewing in the southern area of the province was considerably younger than that obtained in the north, reflecting the requirement for southern respondents to engage in recreational activities or be involved in the burning of brush, stubble or debris.

AGE GROUPINGS		
	South	Forest
Under 20	24 (8.0%)	39 (7.8%)
20 – 29	41 (13.7%)	62 (12.4%)
30 – 39	57 (19.1%)	67)
40 – 49	67 (22.4%)	116 (13.4%)
50 – 59	56 (18.7%)	70)
60 – 69	34 (11.4%)	90 (23.2%)
Older	17 (5.7%)	56)
		(14.0%)
)
		(18.0%)
)
		(11.2%)
)

The largest concentration of population in the forests and forest fringe sample were from the city of Prince Albert comprising over 30 percent of that sample. The cities of Regina and Saskatoon each contributed just over 20 percent of the respondents to the southern sample.

It is not possible to give a precise figure but based on the experience of the interviewing process it appears that a large majority of households in the south of the province engage in recreational activities in north or central Saskatchewan.

III. BURNING PERMITS

All residents of the forest or forest fringe and the 73 residents of the south who use fire for constructive purposes were asked a series of questions concerning provincial burning permits.

They were first asked what these burning permits are needed for. Multiple responses were recorded.

BURNING PERMITS		
Stubble	–	136
Campfires	–	86
Brush	–	56
Clearing Debris	–	61
Garbage	–	34
Grass	–	60
Burning Barrel	–	15
Old Lumber	–	24
Any / All Fires	–	29
Don't Know	–	73

These respondents were then asked where these provincial burning permits are required. Nearly 4 out of 10 residents do not know where these permits are required.

PERMITS REQUIRED WHERE?		
Province-wide	–	95
Central and North	–	24
Within 4.5 km of Forest	–	54
Near Forest (general)	–	92
Parks	–	83
Other	–	43
Don't Know	–	225
		(39.3%)

In the south 39 of 73 (53%) did not know where permits are required. Those indicating near forest or within 4.5 kilometres of a forest total 25 percent of the sample.

Other responses included cities and towns (14), farms (10), rural areas (2), roadways (3) and other single mentions.

The responses to the question as to what these permits are required for from males and females showed little difference, but men were much more likely to identify the correct areas where these permits are required. Sixteen percent of males but only 3 percent of females gave a correct response.

Only 3 of those who correctly identified where these permits are required were under the age of 30 years. Correct response was highest (15%) among those 40 to 49 years of age. An equal number in this group said “near forest”.

This portion of the sample was then asked during what period these provincial burning permits are required. The correct answer is from April 1st to October 31st each year.

PERMIT REQUIRED WHEN?		
Year Round	–	51
April 1 to October 31	–	65
Spring / Summer	–	137
Spring to Fall	–	18
Summer	–	44
Summer / Fall	–	9
April/May to Fall	–	14
Fall	–	23
Spring	–	3

Other responses included “dry season”, “night time” and “anytime but winter”.

There were 61 residents of the forest who identified the correct period of time that permits are required (12.2 percent).

The final question specifically related to provincial burning permits asked respondents if they could identify the agency that issues provincial burning permits. Over one-third of the sample named Saskatchewan Environment and Resource Management (most often identified as Environment Department or Department of Resources).

AGENCY ISSUING BURNING PERMIT?		
SERM	–	216
Rural Municipality	–	(37.8%)
Forestry	–	56 (9.8%)
		36 (6.3%)
Others		
Fire Department	–	6
Government (general)	–	7
SGI	–	6
Parks	–	3
Town / City	–	4

Forty percent were unable to provide a response to this question. Residents of the north were more likely to identify SERM as the source of these permits.

IV. PRECAUTIONS

Those who reside in the north and residents of the south who use fire for constructive purposes were asked what conditions they take into consideration when doing so. Wind is considered the most important factor in lighting these fires. This factor was the first mention for over half of the sample.

FIRE CONDITIONS CONSIDERED		
Wind	–	380
Temperature	–	126
Humidity	–	64
Material Dryness	–	120
Weather (General)	–	77
Surface Litter	–	40
Soil Moisture	–	85
Organic Surface Material	–	13
Fire Break / Fire Guard	–	54
Water Available	–	23
Nearby Structures	–	28

There were also references to location (general) and not burning at night, in winter and after/before rain.

All respondents in both sub-samples were then asked if they are insured against loss from wildfire. Just under one-in-four are.

WILDFIRE INSURANCE		
South	Forest	Total
65 (21.7%)	128 (25.6%)	193 (24.2%)

Among male respondents, 27 percent indicated they have this insurance.

Those 40 to 49 years of age are most likely to be insured at 30 percent. The most marked difference in the levels insured between north and south was among those 20 to 30 with 36 percent in the north and only 10 percent in the south in this age group insured.

They were then asked how much they would be willing to spend to reduce the risk of wildfire on their property. Two-thirds of the sample could not offer a response to this question and one-in-four would not be willing to spend anything.

There were 28 respondents (3.5%) who would be willing to spend an amount less than \$250 on these efforts and another 11 (1.4%) who would spend up to \$500 to reduce their risk. Only 3 would be willing to spend a greater amount while 200 (24.9%) would not be willing to spend any amount.

The sample was then asked if they have actually done anything to reduce the risk of wildfire on their property. Just over one-quarter of the sample, 210 or 26.3 percent, indicated an action they have taken in this regard.

The most common efforts were creating fire guards, clearing old brush and keeping grass cut or cleared.

WILDFIRE RISK REDUCTION EFFORTS		
	First Mentions	Other Mentions
Fire Guard	60	14
Clear / Cut Brush	27	8
Cut Grass	33	18
Clean Up	26	12

There were also multiple references to “back burning” as a form of fireguard and to having a source of water available (water tank, hose, dugout, etc.).

They were then asked to indicate who is responsible for the costs of suppressing a wildfire. A majority believe that some level of government (most citing the province) is responsible for these costs.

WILDFIRE SUPPRESSIONS COSTS		
Whoever Starts	–	135 (16.9%)
Property Owner	–	101 (12.7%)
Municipality / City	–	158
Provincial Government	–	205 (19.8%)
Federal Government	–	11 (25.7%)
Taxpayers	–	23 (1.4%)
Fire Department	–	14 (2.9%)
Insurance	–	6 (1.8%)
		(0.8%)

Other responses included “everybody” (3), “Band Office” (2), and “Parks and Recreation” (2).

There were 155 or 19 percent of the sample who could not answer this question.

Men were more likely than women to say these costs accrue to whoever starts the fire while women were more likely to name the provincial government.

There were little in the way of differences based on the age of respondents although older residents appear less willing to spend on risk reduction.

V. CAMPFIRES

Members of both samples were asked if they ever build a campfire and a large majority indicated they do so.

BUILD CAMPFIRES	
South	Forest
244 (81.6%)	332 (66.5%)

Limiting the interviewing in the south to those who engage in recreational activities will account for the significant difference between the two samples.

Males were somewhat more likely to build campfires at 77 percent compared to 67 percent among females.

The number building campfires declines steadily with the age of the respondent

AGE COMPARISONS FOR BUILDING FIRES		
Age		Build Campfires
Under 30	–	85.5%
30 to 49	–	77.5%
50 to 69	–	65.2%
70 or Over	–	41.7%

Those who do build campfires were asked what steps they take to ensure their campfire is safe and then what they do to ensure their campfire is out.

CAMPFIRE SAFETY MEASURES (Total Mentions)		
Use Facilities Where Available	–	322
Build on Mineral / Rock / Sand	–	216
Clear Away Burnable Material	–	122
Keep Fire Small	–	58
Keep Fire in Sight	–	51
Have Water / Shovel Handy	–	63
Not During Wind	–	10

ENSURING CAMPFIRE IS OUT (Total Mentions)		
Drown Fire	–	544
Float and Stir Coals	–	74
Check Coals for Heat	–	28
Bury / Cover with Dirt/Sand	–	65

Other responses were to stay/watch until fire was out (22 mentions) and cover with lid (3 mentions).

Females are more likely to attempt to use available facilities while males are more likely to build on rock or sand or to dig a pit for their campfires. There was little difference in the way the two genders approach ensuring that a campfire is out.

Middle-aged campfire builders are more likely to use available facilities than either younger or older respondents.

There were no discernable differences by age in terms of extinguishing campfires. Drowning the fire was mentioned by over 90 percent within each age category and by 94 percent of campfire builders overall.

VI. INFORMATION

Respondents were asked where they can obtain wildfire safety knowledge. Saskatchewan Environment and Resource Management was cited by over one-third of those living in the forest and forest fringe but by just over 10% of those in the southern sample.

SOURCE OF INFORMATION WILDFIRE SAFETY KNOWLEDGE		
SERM	–	208
Internet	–	78
Parks	–	64
Fire Department	–	38
Forestry	–	36
R.M.	–	32
Libraries	–	22
Media	–	14
Schools	–	11
Tourism	–	8

Others: SGI (7), Ag Rep. (5), Conservation Officer (5), town/city (4), word-of-mouth (3), Wildlife (3).

They were then asked if they had seen or heard any information about wildfire prevention in the past year and, if so, where they had noticed this information.

Just under one-half of the total respondents had noticed information.

NOTICE WILDFIRE PREVENTION INFORMATION	
South	Forest
153 (51.2%)	213 (42.6%)

The principal source of this information was television (multiple mentions recorded):

INFORMATION SOURCE WILDFIRE PREVENTION INFORMATION		
Television Ads	–	183
Newspapers	–	80
Radio Ads	–	77
Billboards, Outdoor	–	51
Mail, Brochures, Etc.	–	39
Parks/Campgrounds	–	8
Word-of-Mouth	–	7
Schools	–	5

Other: magazines (3), Post Office (2), SGI (2), Smokey (2), work (2).

Respondents were asked if they could identify the message that is delivered by Smokey the Bear. Fewer than one-quarter correctly did so.

SMOKEY THE BEAR MESSAGE		
	South	Forest
Only You Can Prevent Forest Fires	80 (26.8%)	109 (21.8%)

Males were slightly more likely to identify Smokey’s message at 26.9 percent compared to 21.4 percent of females.

The slight regional difference was exaggerated within the younger age groupings.

SMOKEY'S MESSAGE BY AGE		
	South	Forest
10 to 19	54.2%	28.2%
20 to 30	48.8%	30.6%
30 to 39	21.1%	29.9%
40 to 49	25.4%	26.7%
50 to 59	19.6%	22.9%
60 to 69	17.6%	8.9%
70 and Over	5.9%	7.1%

Given the period of time that this message has been in use, the drop in recognition with age is surprising.

They were then asked if they could identify any other fire prevention message. There were 127 respondents in the south (42.5%) and 154 in the forest area (30.8%) who gave a response.

A complete listing of the responses to this question follows at the end of this section. There were several references to general messages such as “be careful with fires/matches”, “don’t play with fire/matches”, “don’t throw out butts” fire hazard notices and “make sure it’s out”. “Stop, drop and roll” also had several mentions among younger respondents.

APPENDIX "A"

The Questionnaire

APPENDIX "B"

Selected Data