

Public Opinion Poll  
To Determine Support for Attracting Bruce Power  
To Develop In The Prince Albert Region

March12, 2009

**DEMAR Consulting Associates INC.**

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## Background

As fears mount about global warming, nuclear power is shedding its undesirable image and emerging as a cleaner alternative to coal plants, one of the main sources of heat-trapping carbon emissions. The need for sweeping action on climate change, as well as the urgency in bolstering domestic energy sources, means it's time for the province of Saskatchewan to revisit nuclear energy as a source of power. (The Government of Saskatchewan, 2008)

Canada is the world's largest producer of natural uranium. The expansion of the nuclear industry around the world offers an opportunity for Saskatchewan to add value to our raw uranium resources, grow our economy, create new jobs and contribute to the reduction of greenhouse gas emissions.

Adversely, there are concerns that problems with greenhouse gas emissions are simply being replaced with others, that of the disposal and storage of nuclear wastes. Further, there are questions of just how expensive nuclear power might be, and whether there are more benign and renewable alternatives to increasing energy efficiency. (The Calgary Herald, February 25, 2009)

Several public opinion polls conducted in the past year support the development of a nuclear power plant in Saskatchewan. In February, 2008, an Inshtrix Research Inc. Poll revealed that 66.4% of Saskatchewan residents support the development of a nuclear refinery in Saskatchewan. The data is considered accurate within plus or minus 3.4 percentage points, 19 times out of 20. (Inshtrix Research, February 15, 2008)

In June 2008, Bruce Power President Duncan Hawthorne announced the launch of a feasibility study into the possible role nuclear power could play in Saskatchewan. This survey conducted by Pollara Research and Communications for Bruce Power, found 52 per cent of Saskatchewan residents polled expressed support for nuclear energy, while 39 per cent of those polled were opposed to the idea of a nuclear power plant in the province. (Canada.com, November 27, 2008)

Mr. Hawthorne released the results of that study concluding nuclear power is viable and said Bruce Power will now consider identifying a specific power plant site and launching a comprehensive environmental assessment. Bruce Power is Canada's only private nuclear generator and was formed in May, 2001. The company operates one of the largest nuclear facilities in the world and is currently considering new growth options throughout Canada. (Bruce Power, November, 2008)

Several recent occurrences led to this opinion poll initiative:

- 1) Late last year, Bruce Power identified Prince Albert (PA) as one of three potential sites for a nuclear power facility in Saskatchewan.
- 2) Part of the strategic vision of the City of PA is for the City to establish itself as a growth centre by establishing an industrial park for Saskatchewan's future green energy developments. These developments could possibly include; ethanol & products, bio-fuels (bio-diesels and wood pellets), green energy from the farm & forest, uranium processing & upgrading and green energy from Saskatchewan's uranium resources. To determine public support, several questions regarding this initiative were added to the public opinion poll.

As a result, the City of PA hired a consulting firm which conducted a telephone survey to investigate the public support for the feasibility of attracting Bruce Power to locate within a 50 kilometre radius of the City. In addition, the survey determined the level of support for the development of an industrial park for 'green energy' in the Prince Albert region.

Nuclear issues have been the object of public controversy for many years. Public perception has been set by our memories of the Chernobyl disaster, mine sites such as Uranium City that have not been decommissioned and results of studies that point to increased risk of cancer or unsafe drinking water from radiation. "Research damning the nuclear industry is not hard to find." (Prince Albert Daily Herald, January 30, 2009)

In January of 2009, the Prince Albert Daily Herald asked readers to submit questions regarding nuclear power. These questions were then asked of Bruce Power officials and the results were featured in the newspaper at the end of January.

The opinion poll occurred at a time when the public had the opportunity to reflect on information presented by Bruce Power when responding to the opinion poll.

## Methodology

The City of Prince Albert survey was conducted by telephone between February 8 and February 23 among a citywide and regional random sample of 635 residents, ages 18 and older. Interviews were conducted with urban and rural residents to reach a broad representative sample of Prince Albert and region. The final sample was selected to reflect the demographic breakdown of the region. The results show a 95% confidence level with a margin of error for the entire sample of approximately +/- 4.0 percentage points. The margin of error is higher for subgroups.

Surveys are subject to other sources of error as well, including sampling coverage error, recording error and respondent error.

### A) Confidence Levels

**Table 1 Sample Selection Confidence Levels <sup>†</sup>**

Based on of 2006 Population – ages 15 and older		Population	Sample Size Required to Achieve: <sup>§</sup>		
			95% +- 5%	95% +- 7%	95% +- 9%
Prince Albert plus Identified Rural Areas <sup>‡</sup>		50305	382	195	118
Sex/Gender	Females	25647	379	195	118
	Males	24190	379	195	118
Education Levels	Grade 12 or lower	28785	379	195	118
	Post-secondary	20790	379	195	118
Age	15 to 44 years	24415	379	195	118
	Older than 44 years	25695	379	195	118
Location	Rural	23830	379	195	118
	Urban	26475	379	195	118

<sup>†</sup> Confidence level calculations based on the maximum possible degree of variability.

<sup>§</sup> Targeted confidence levels are shaded.

<sup>‡</sup> Refer to Appendix B – Census Regions – for details.

Table 2 displays actual confidence levels achieved during the polling. The 635 completed responses represent a 95% confidence level +-4% for a population of 50305.

**Table 2 Confidence Levels Achieved**

Demographic Category		Population <sup>‡</sup>	Responses	Confidence Levels
Gender	Female (age 15+)	25647	353	95%+-5%
	Male (age 15+)	24190	279	95%+-6%
Education	Postsecondary (age 15+)	20790	426	95%+-5%
	No Postsecondary (age 15+)	28785	208	95%+-7%
Age	15 to 44	24415	249	95%+-6%
	45 and older	25965	384	95%+-5%
Location	Prince Albert (age 15+)	26475	379	95%+-5%
	Outside of City Limits (age 15+)	23830	256	95%+-6%
Overall	With no demographic breakouts	50305	635*	95% +-4%

<sup>‡</sup> Based on Statistics Canada Figures for the Prince Albert Parkland Health Region  
<sup>\*</sup> Total number that answered the major question

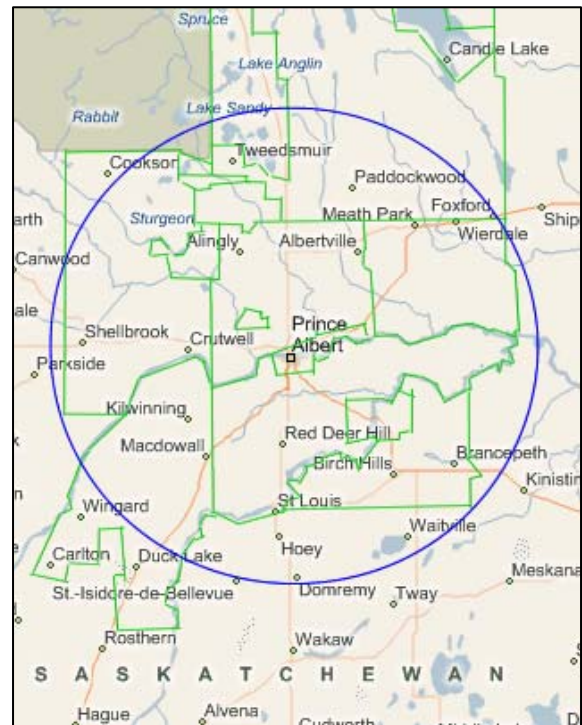
Sources: Statistics Canada

B) Targeted Areas

The operation of a nuclear facility requires water for cooling. Therefore, instead of targeting the entire Prince Albert Parkland Health Region, we identified rural communities closest to the Saskatchewan River. We decided to include the communities of Meath Park, Paddockwood and Smeaton as they are the closest centres north of the forks of the North and South Saskatchewan Rivers.

Figure 1 shows the approximate calling area in the circle. The Statistics Canada census areas overlay the map as well.

Refer to Appendix B for information on the census regions.



**Table 3 Communities Polled**

Major Centre	Communities also included	
Prince Albert	Alingly Casavant Acres Crestview Acres Crutwell Davis Green Acres Henribourg Kiskaciwan First Nation Lily Plain Little Red River First Nation MacDowall Madden Place	Muskoday First Nation Nesbit Heights Pine Haven Place Verte Peter Pond Red Deer Hill Redwing/Red Wing Terrace Round Lake Resort Sioux Wahpeton Spruce Home Sturgeon Lake First Nation
Shellbrook	Sturgeon Lake Holbein	Mayview Parkside
Christopher Lake	Angling Lake Little Red River First Nation	Resort subdivisions
Meath Park	Albertville Candle Lake	Foxford Weirdale
Paddockwood	Paddockwood and RM	
Smeaton	Shipman (not Little Bear, Whelan Bay or East Trout)	
Kinistino	James Smith First Nation Struthers Lake	Meskanaw Weldon
Birch Hills	Brancepeth Crystal Springs	Hagen
St Louis	Hoey	
Domremy	St Isadore De Bellevue	One Arrow First Nation
Duck Lake	Beardy's First Nation Okemasis First Nation	Carlton
Marcelin	Lac La Peche (Incomplete)	
Leask	Mistawasis First Nation	Muskeg Lake First Nation

### C) Instrument

The survey instrument was developed in consultation with representatives of the City of Prince Albert. Refer to Appendix A.

**Table 4 Total Phone Calls**

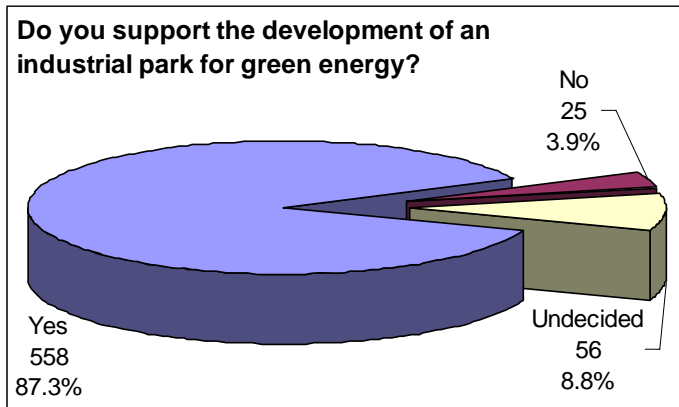
Phone Calls Made	Completed Surveys	Calls Made per Completed Survey
3274	635	5.2

Note: for a population of 50,385 people, 382 completed calls will result in a confidence level of 95% with a +/- 5% margin of error. In the case of this poll, it was necessary to continue beyond this number to ensure that confidence levels of the sub-groups, as identified in Table 1, were achieved.

The 5.2 calls per completed survey are consistent with other polls completed by the researchers.

## Results

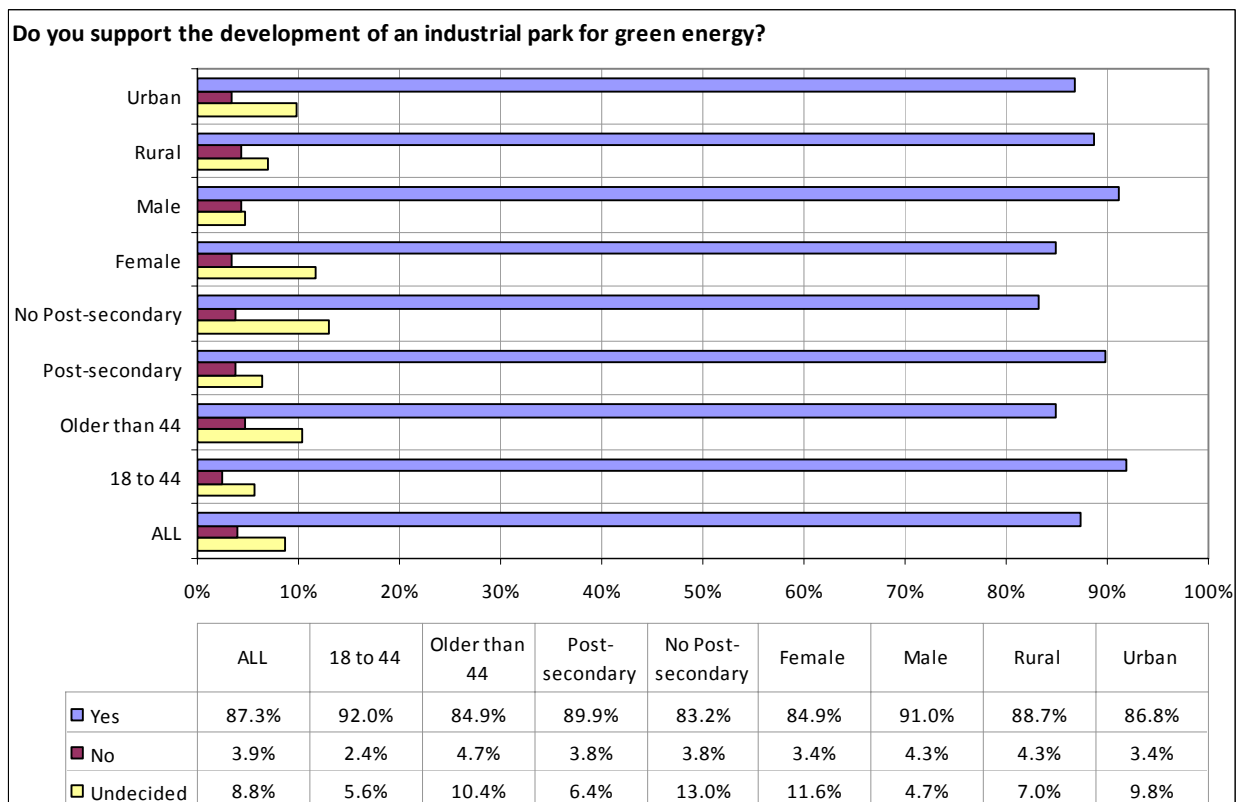
### A) Do you support the development of an industrial park for green energy?



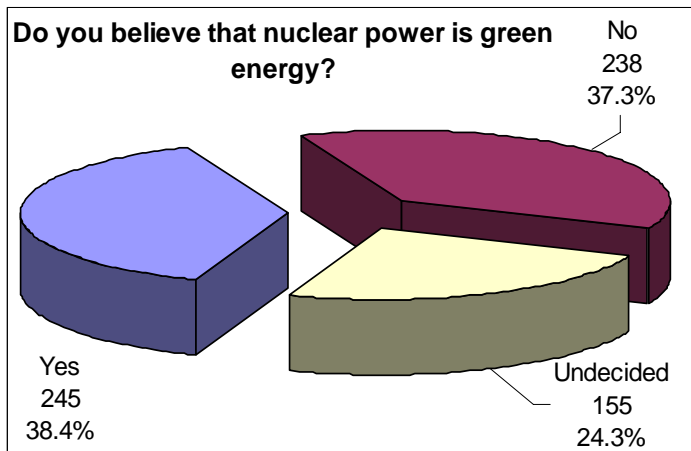
At 87.3%, there is a high level of support for the concept of an industrial park for the generation of green energy. With only 3.9% of respondents saying they oppose the idea and 8.8% being undecided, it yields significant support for such a park.

As shown in the chart below, there are some variations in the level of support among the various demographic categories with a range from 83.2% to 92.0% answering yes to this question.

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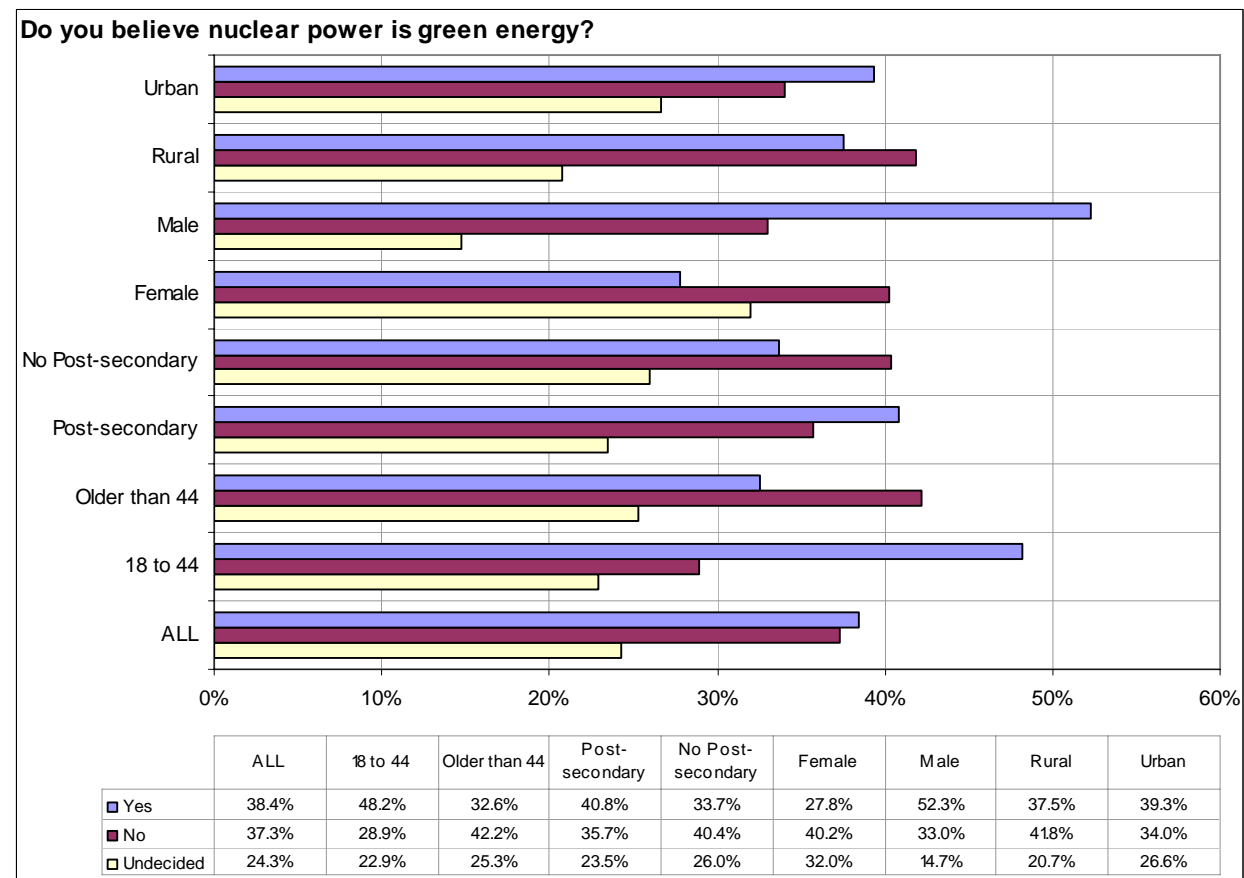


B) Do you believe that nuclear power is green energy?

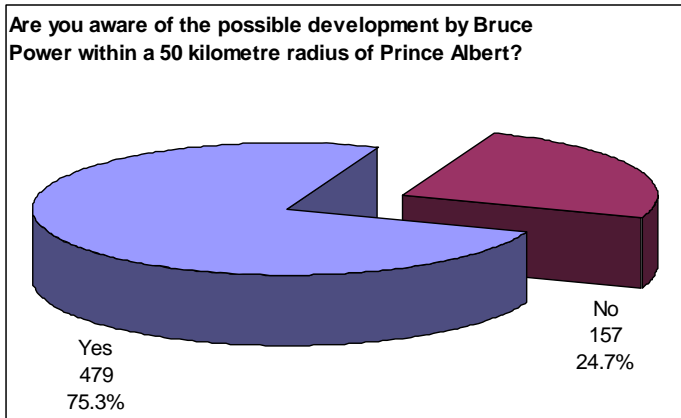


The responses to this question are more mixed with 24.3% of respondents being undecided and an almost even split between those answering yes and those answering no.

There is a greater degree of variation in the responses from the demographic categories as well. This is most evident within the gender category, with males giving the highest level of yes responses (52.3%) and females giving the lowest (27.8%).

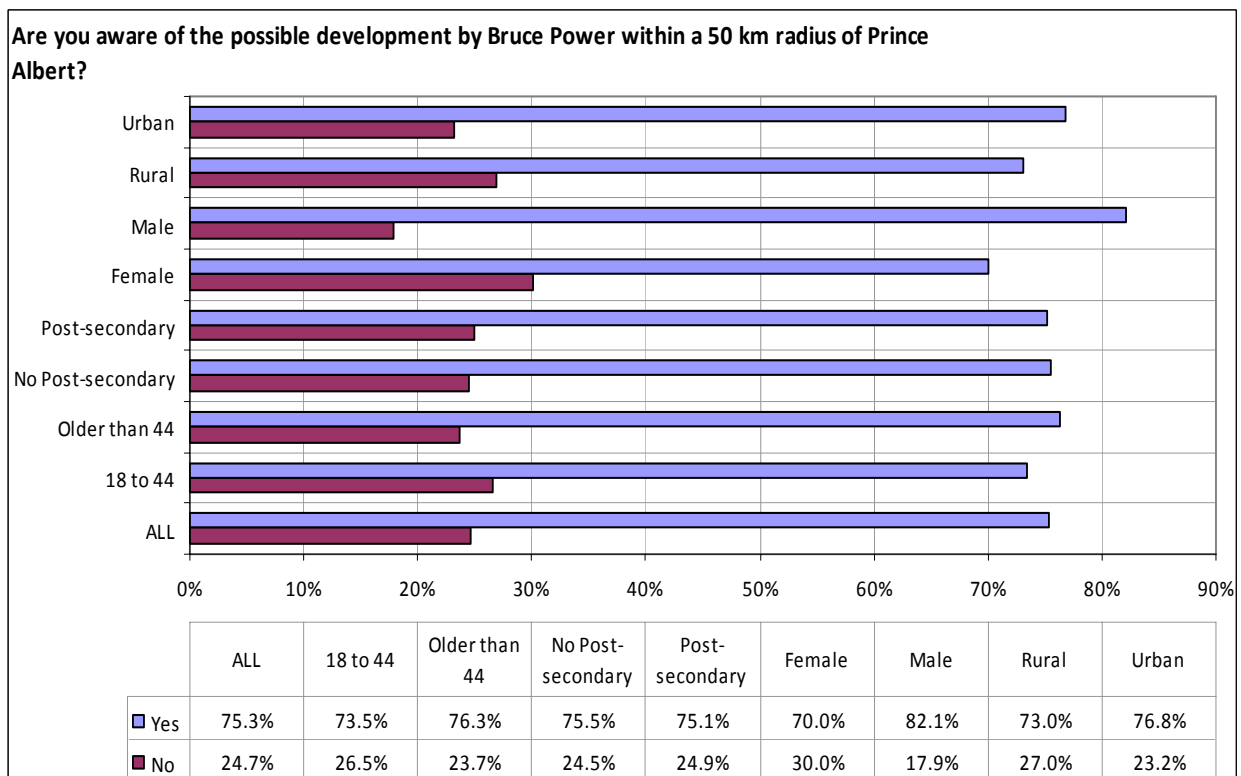


C) Are you aware of the possible development by Bruce Power within a 50 kilometre radius of Prince Albert?



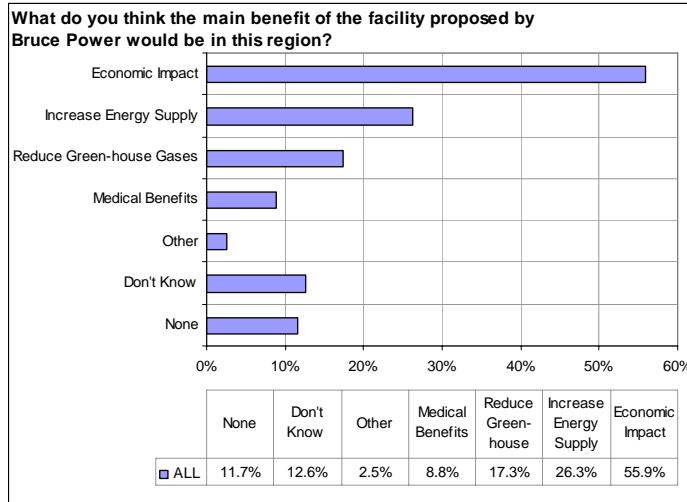
Three quarters of the respondents (75.3%) said that they were aware of the possible development by Bruce Power in the Prince Albert area.

There are some differences in the levels of awareness among the demographic categories with the greatest variation again being between males (82.1%) and females (70.0%).



Interviewers continued to pose all remaining questions to respondents even if they said they weren't aware of the possible development in the area. The differences in how the two groups answered the remaining questions are detailed in the following sections.

D) What do you think the main benefit of the facility proposed by Bruce Power would be in this region?



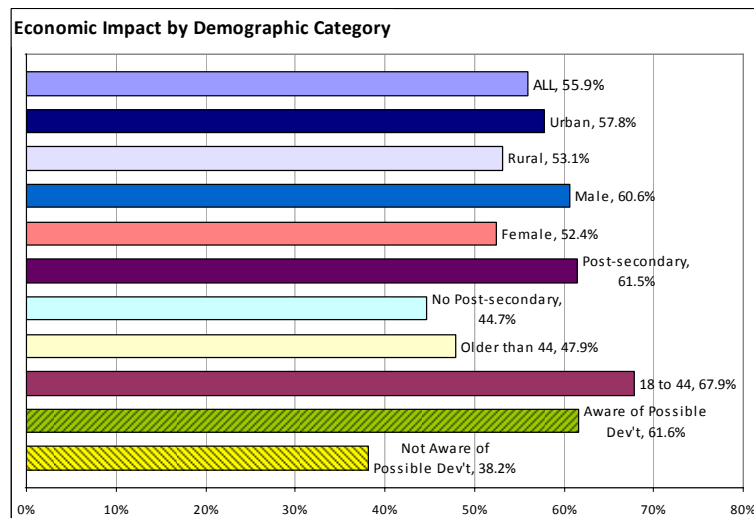
Clearly, respondents view the economic impact as the major benefit of the proposed Bruce Power facility, with 55.9% choosing this option. (Note that respondents occasionally selected more than one of the offered selections as the main benefit.)

There are marked differences within the demographic categories as demonstrated in the table below.

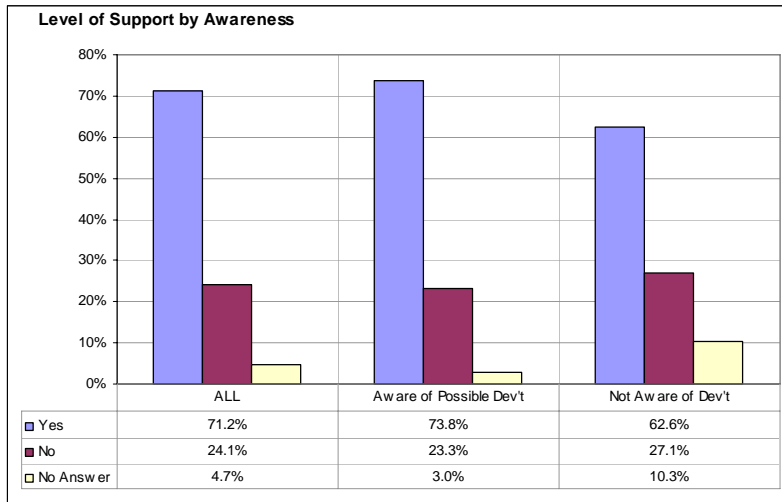
**Table 5 Benefits by Demographic Category**

	None	Don't Know	Other	Medical Benefits	Reduced Greenhouse Gases	Increased Energy Supply	Economic Impact
ALL	11.7%	12.6%	2.5%	8.8%	17.3%	26.3%	55.9%
18 to 44	8.8%	9.6%	2.4%	8.0%	15.7%	20.1%	67.9%
Older than 44	13.5%	14.6%	2.6%	9.4%	18.5%	30.5%	47.9%
No Post-secondary	11.5%	15.4%	1.9%	7.7%	16.8%	29.3%	44.7%
Post-secondary	11.7%	11.3%	2.8%	9.4%	17.4%	24.9%	61.5%
Female	12.2%	19.5%	1.4%	7.4%	13.0%	21.0%	52.4%
Male	10.8%	3.9%	3.6%	10.8%	22.6%	33.0%	60.6%
Rural	14.1%	11.7%	2.0%	9.4%	17.2%	28.5%	53.1%
Urban	10.0%	13.2%	2.9%	8.4%	17.4%	24.8%	57.8%
Aware of Possible Dev't	11.5%	7.9%	2.7%	9.8%	18.8%	27.3%	61.6%
Not Aware of Possible Dev't	12.1%	26.8%	1.9%	5.7%	12.7%	22.9%	38.2%

This chart illustrates the differences in ranking of 'economic impact' as a main benefit. The highest ranking comes from the 18 to 44 age category with 67.9% choosing economic impact as the greatest benefit while only 47.9% of those in the older category did so. The chart also displays a large difference between those who were aware of the possible development and those who were not, with economic impact being chosen by 61.6% and 38.2% of respondents respectively.

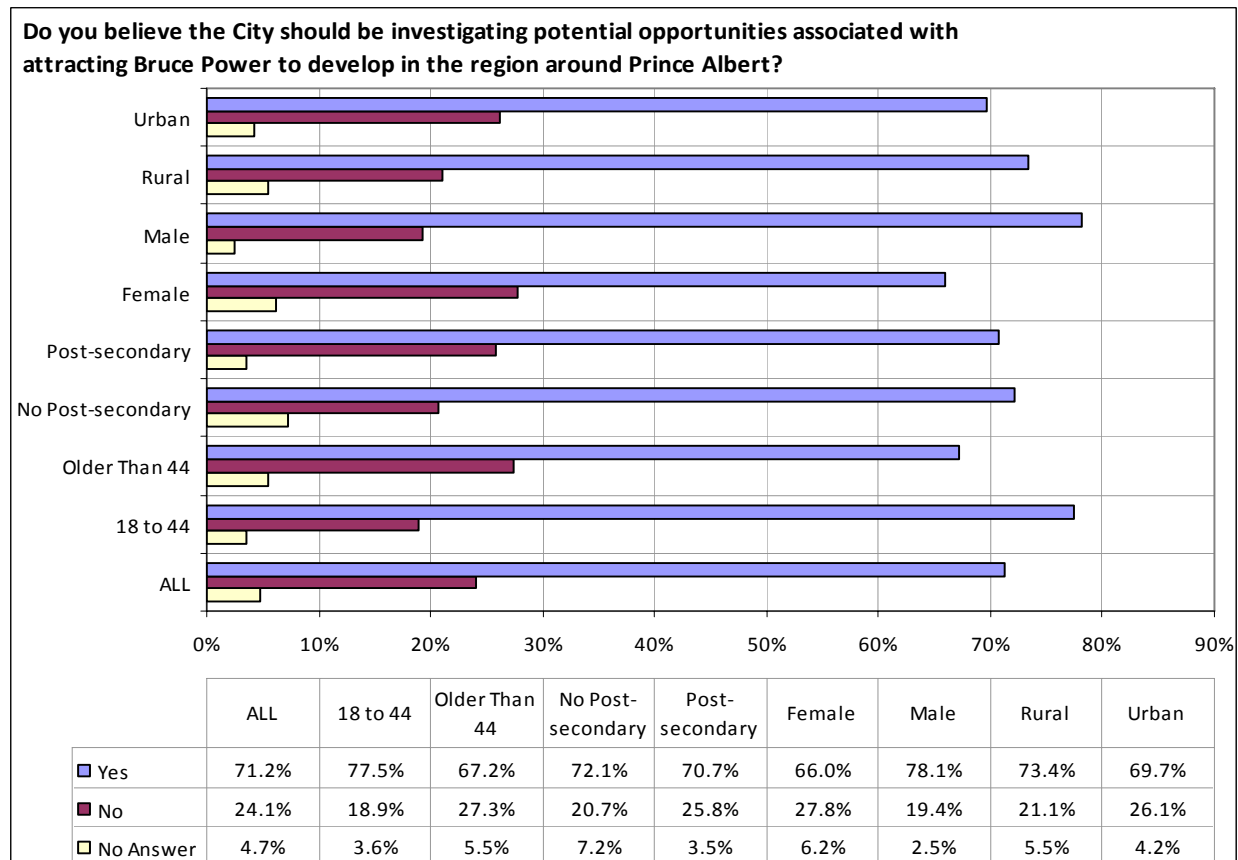


E) Do you believe the City should be investigating potential opportunities associated with attracting Bruce Power to develop in the region around Prince Albert?

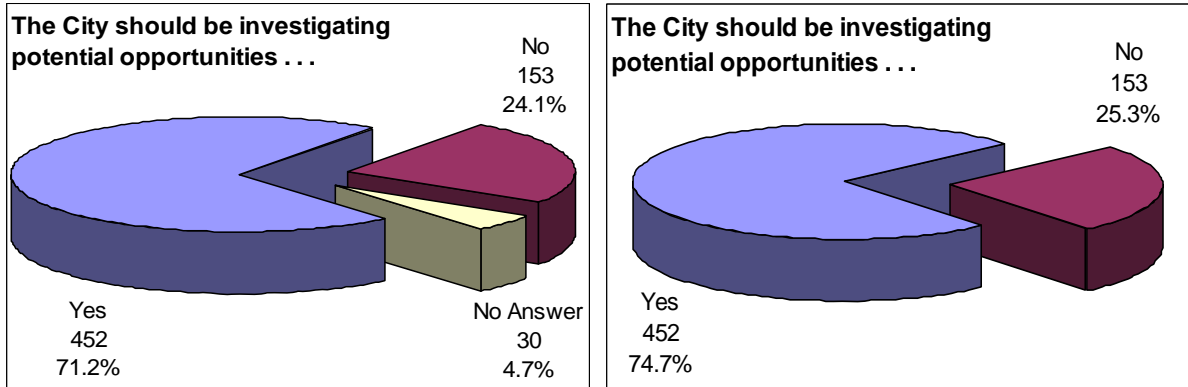


The percentage of all respondents answering yes to this question is quite high, at 71.2%. When the percentage is calculated by excluding those who said they were not aware of the possible development by Bruce Power, the number increases slightly to 73.8%. Of those who were not aware of the potential development, the level drops to 62.6%.

Both males and those ages 18 to 44 most frequently answered yes to this question, at 78.1% and 77.5% respectively. Conversely, females and those older than 44 years of age answered yes least often, at 66.0% and 67.2% respectively.



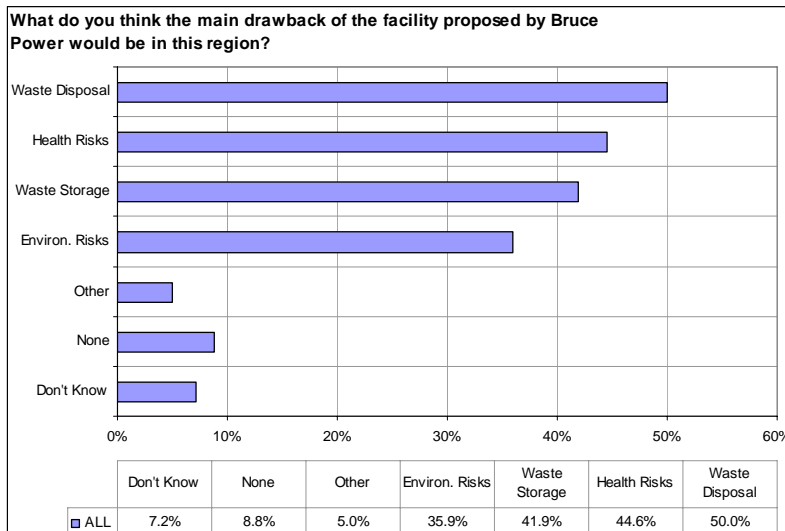
If support for further investigation is analysed by excluding those who did not answer this question, the level rises from 71.2% to 74.7%.



*Do you believe the City should be investigating potential opportunities associated with attracting Bruce Power to develop in the region around Prince Albert?*

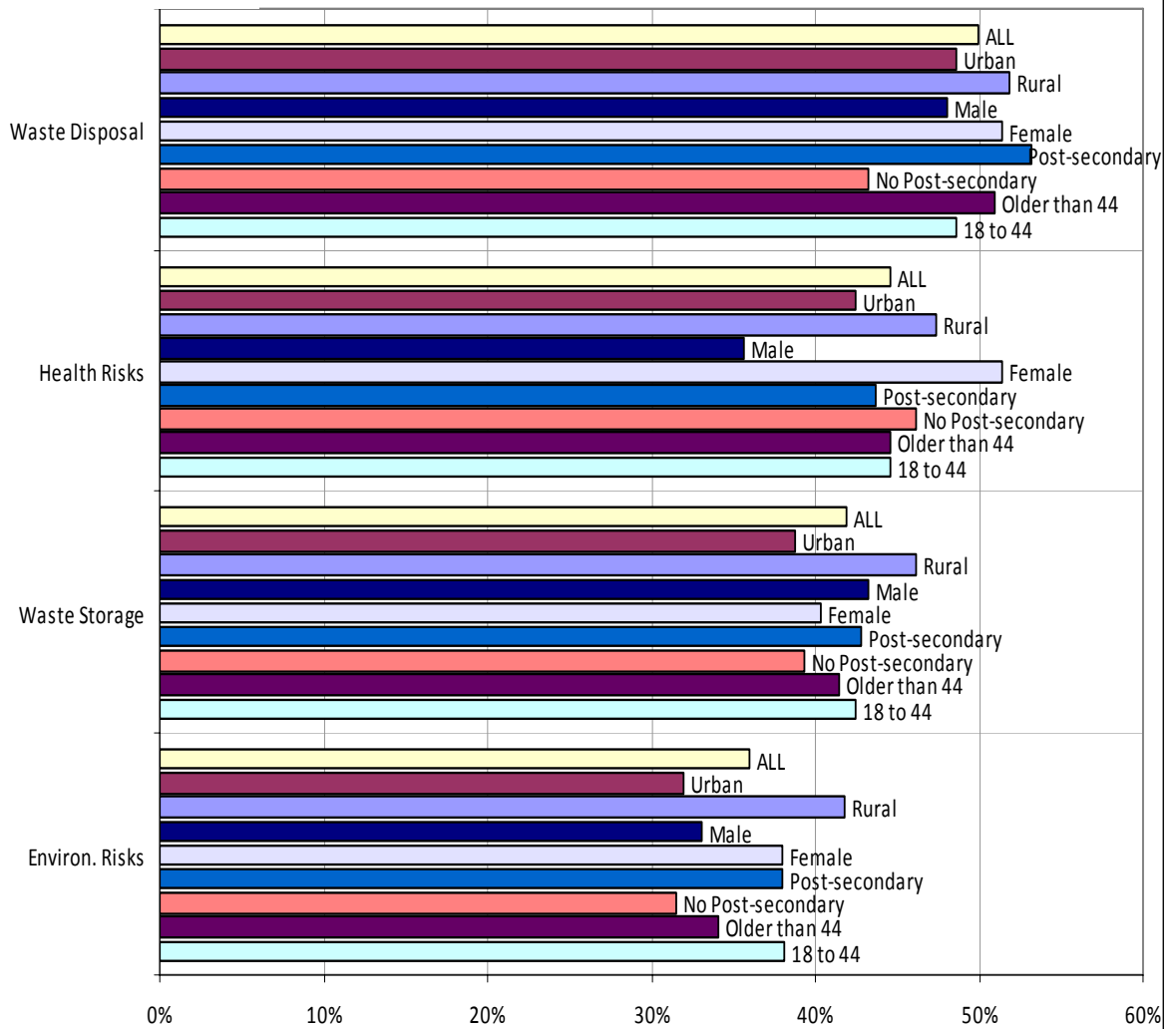
	Yes	No	No Answer	Total
	452	153	30	635
<i>Percentages including all responses:</i>	71.2%	24.1%	4.7%	100%
	452	153		605
<i>Percentages including only yes or no responses:</i>	74.7%	25.3%		100%

F) What do you think the main drawback of the facility proposed by Bruce Power would be in this region?



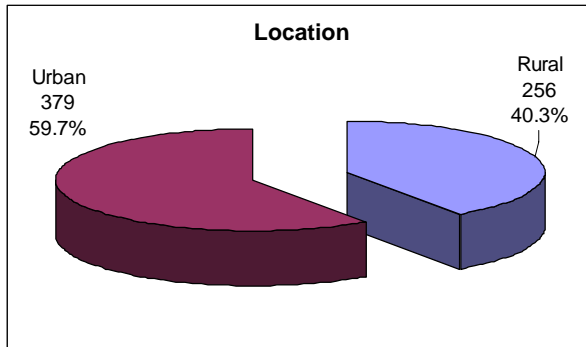
The respondents made less distinction among the main drawback categories than they did for the benefits. There are two reasons for this. First, the options offered as responses to the question are not as mutually exclusive as the benefits were. Second, respondents more frequently chose more than one option for this question. On average, respondents selected 1.7 drawbacks and 1.1 benefits.

### Drawbacks by Demographic



	Environ. Risks	Waste Storage	Health Risks	Waste Disposal
ALL	35.9%	41.9%	44.6%	50.0%
Urban	31.9%	38.8%	42.5%	48.5%
Rural	41.8%	46.2%	47.4%	51.8%
Male	33.1%	43.3%	35.6%	48.0%
Female	38.0%	40.3%	51.4%	51.4%
Post-secondary	38.0%	42.8%	43.7%	53.2%
No Post-secondary	31.6%	39.3%	46.1%	43.2%
Older than 44	34.0%	41.4%	44.6%	50.9%
18 to 44	38.1%	42.5%	44.5%	48.6%

## G) Demographics

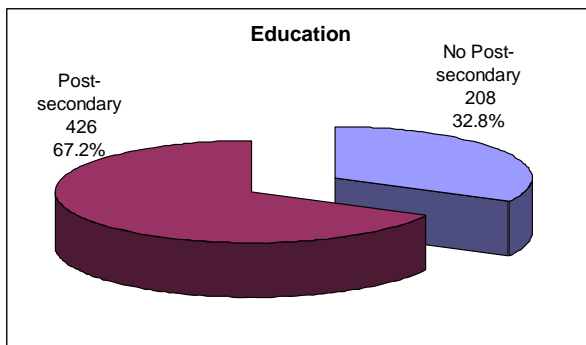
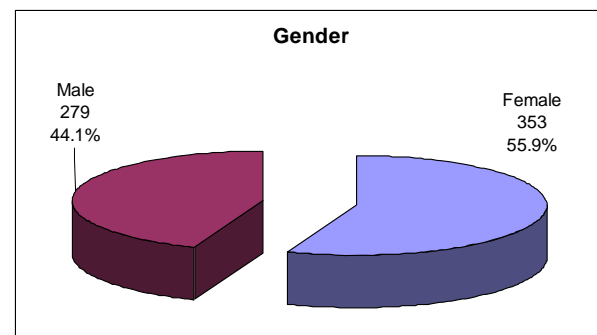


Most respondents (59.7%) were from within the city limits. In the opinion poll, “Urban” was defined as those living within Prince Albert city limits.

For responses from urban residents we have a calculated confidence level of 95% with a margin of error of 5%. For rural residents the level is 95% with a 6% margin of error. However, there

is probably a smaller margin of error because the calculations are based on entire Statistics Canada census divisions, but only communities close to the city of Prince Albert were canvassed. See the Methodology Section.

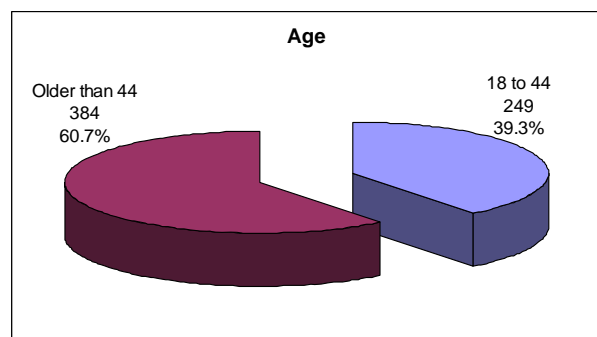
More women (353) than men (279) completed the opinion poll. While females in the area represent 52% of the population, 56% of the poll respondents were women. Confidence levels for females and males are 95% with a 5% margin of error for females and 6% for males.



The smallest sample size (206) came from those with no postsecondary education. This group was the most difficult one from which to gain adequate responses to achieve the targeted confidence level. While the percentage of the general population with grade 12 or less is about 60%, they represented 33% of the respondents to this poll. Confidence levels are 95% +/- 5% for those with postsecondary

education and 95% +/- 7% for those with no postsecondary education.

The calculated confidence level for those aged 18 to 44 is 95% +/- 6%; however the margin or error is probably lower. This is because there is no Statistics Canada age group beginning at 18 while the poll only asked questions of those aged 18 or older. The confidence level for those older than 44 is 95% +/- 5%.



## Conclusions

There are two stated purposes for this poll, a) to determine the level of public support for an industrial park for 'green' energy, and b) to determine the level of public support to investigate the feasibility of attracting Bruce Power to locate a nuclear facility in the Prince Albert region. There is a high level of support for an industrial park from all poll respondents. The preamble to this question is, "The City of Prince Albert is working on a new economic development initiative to attract green industries to our community such as biodiesel, ethanol, hydrogen fuel cell production, etc." The majority of respondents (87.3%) answered yes to this question.

The next question asked respondents if they believed nuclear energy to be green. The responses here are much less uniform with a high level of undecided responses (24.3%). Only 38.4% answered yes while an almost equal number, 37.3%, answered no.

This clearly indicates there is no consensus on whether or not nuclear energy is considered to be green. A further unanswered question then is, *how might public support change if an industrial park included nuclear components?*

There is a large portion (75.3%) of Prince Albert and area that is aware of the possible development of a nuclear facility by Bruce Power. This is, no doubt, due to information gathered from local media, including advertisements, editorials and written articles and documents.

In spite of very mixed answers to whether or not nuclear energy is green, there is a significantly high level of support for the City to "investigate potential opportunities associated with attracting Bruce Power to develop in the region." It appears that there is a strong mandate for this investigation from nearly three quarters of poll respondents.

The support for attracting Bruce Power to the Prince Albert area is quite high compared to other, recent opinion polls. Even the lowest level of support (females at 66.0%) is quite high and reaches 77.5% for those aged 18 to 44 and 78.1% for males.

We propose that there are several reasons for this:

- 1) The community of Prince Albert has been involved with the nuclear industry for three decades. As evidence of the existing economic impact of the uranium industry in the area, we offer these points:
  - a. there are 35 flights a week between Prince Albert and the northern uranium mines operated by CAMECO and AREVA;
  - b. there are 200 reserved parking spaces at the airport for CAMECO staff; and
  - c. there are now second generation employees of the uranium industry living in Prince Albert and area.

- 2) When comparing this study to those cited in the background portion of the report, it is important to keep in mind that this study does not directly ask whether people support the development of a nuclear facility. Rather, the main question asks whether the City of Prince Albert should explore potential opportunities associated with attracting Bruce Power to develop in the region.
- 3) This community is ripe for the settlement of new industry. Prince Albert has recently experienced the loss of its major industry with the closing of Weyerhaeuser.
- 4) Considering that the main benefit of a nuclear facility is the economic impact (chosen by 55.9%), it could be argued that during the current global economic downturn, support is bolstered by the potential benefits that could occur. At the same time, the local economy appears to be one of the strongest anywhere. However, it is purely conjecture to suggest that these considerations influenced individuals' responses.
- 5) In addition, it should be noted that the reports done by the local newspaper several weeks prior to the start of the survey (which took the form of questions answered by Bruce Power officials) presented nuclear power in a very positive light. It is not our intent to contradict the information, however, only to state that in the presence of a strong marketing campaign, public opinion favours nuclear development. Had there been anti-nuclear messages spread during the polling, public opinion may not have been so strong.

In closing, it is important to note that the previous list of reasons for the high level of support do not in any way negate the support. It is quite clear that the majority of residents in the polled area believe the City should be investigating the opportunities related to attracting Bruce Power to develop here.

## Appendix A – Public Opinion Poll Questions

1. For the purposes of this poll, we need to talk with residents of the Prince Albert area who are at least 18 years of age. Would this include you?

Preamble: “The City of Prince Albert is working on a new economic development initiative to attract green industries to our community such as biodiesel, ethanol, hydrogen fuel cell production, etc.”

2. Do you support the development of an industrial park for green energy?
3. Do you believe that nuclear power is green energy?

Preamble: “At the same time, Bruce Power has announced that they are considering building a nuclear power facility within the region of Prince Albert. This portion of the public opinion poll will focus on that possible development.”

4. Are you aware of the possible development by Bruce Power within a 50 kilometre radius of Prince Albert?
5. What do you think the main benefit of the facility proposed by Bruce Power would be in this region?
  - a. Economic Impact
  - b. Increased Energy Supply
  - c. Medical Benefits
  - d. Reduced Greenhouse Gases
  - e. Other (Specify)
  - f. None
  - g. Don't Know
6. Do you believe the City should be investigating potential opportunities associated with attracting Bruce Power to develop in the region around Prince Albert?
7. What do you think the main drawback of the facility proposed by Bruce Power would be in this region?
  - a. Environmental risks
  - b. Health risks
  - c. Disposal of Waste
  - d. Storage of Waste
  - e. Other, specify
  - f. None
  - g. Don't Know
8. Have you taken post-secondary education and/or training?
9. Gender
10. Rural/Urban
11. Age

## Appendix B – Census Regions

Census Subdivision	Population 15+	Males	Females	No Post	Postsecondary	15-44	>44
Beardy/Okemasis 96&97	745	360	385	590	165	505	240
Birch Hills 460	550	285	270	240	310	230	320
Birch Hills Town	765	345	415	400	365	375	390
Blaine Lake 434	250	140	110	120	130	75	175
Buckland 491	2775	1385	1385	1490	1285	1185	1590
Candle Lake Resort	740	380	365	315	425	150	590
Christopher Lake VL	175	80	95	90	85	70	105
Domremy VL	100	50	45	65	35	45	55
Duck Lake 463	635	325	310	365	270	245	390
Duck Lake VL	455	205	245	265	170	230	225
Garden River 490	520	275	255	330	190	220	300
Hoodoo 401	685	360	325	315	370	245	440
James Smith 100	430	230	200	310	120	320	110
Kinistino 459	585	295	280	365	220	240	335
Kinistino Town	525	235	290	295	170	205	320
Lakeland 521	975	470	500	480	495	210	765
Leask 464	705	375	335	490	215	230	475
Leask Town	340	155	185	225	115	110	230
Little Red 106C	185	95	90	145	40	135	50
Marcelin VL	135	60	75	80	55	45	90
Meath Park VL	135	65	70	70	65	65	75
Mistawasis 103	665	360	300	610	55	480	185
Montreal Lake 106B	220	120	100	170	50	145	80
Muskeg Lake 102	190	100	90	115	70	100	90
Muskoday FN	420	210	205	280	140	260	160
One Arrow 95	215	105	110	185	30	150	65
Paddockwood 520	835	440	395	525	310	300	535
Paddockwood VL	105	50	45	100	5	25	80
Parkside VL	95	40	55	85	10	40	55
Prince Albert 461	2430	1360	1075	1330	1100	1150	1280
<b>Prince Albert City</b>	<b>26475</b>	<b>12075</b>	<b>14425</b>	<b>14355</b>	<b>11465</b>	<b>13830</b>	<b>12645</b>
Shellbrook 493	1325	705	630	900	425	575	750
Shellbrook Town	930	410	52	495	435	370	635
Smeaton VL	145	70	75	85	60	45	100
St. Brieux VL	390	200	185	185	205	195	195
St. Louis 431	805	420	390	505	300	320	485
St. Louis VL	315	140	175	210	105	145	170
Sturgeon Lake 101	680	355	320	475	205	500	180
Torch River 488	1320	700	620	895	425	490	830
Wahpaton 94A	160	75	80	110	50	110	50
Weldon VL	175	85	90	125	50	50	125
Totals	50305	24190	25647	28785	20790	24415	25965

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