

Public Attitude Research Findings

Public Attitudes Related to NWMO's First Discussion Document

Pollara Inc.



Discussion Document 1: Asking the Right Questions? – What Canadians are Saying

The NWMO has committed to using a variety of methods to dialogue with Canadians in order to ensure that the study of nuclear waste management approaches reflects the values, concerns and expectations of Canadians at each step along the way.

A number of dialogue activities have been planned to learn from Canadians whether the elements they expect to be addressed in the study have been appropriately reflected and considered in Discussion Document 1. Reports on these activities will be posted on the NWMO website. Your comment is invited and appreciated.

Disclaimer

This report does not necessarily reflect the views or position of the Nuclear Waste Management Organization, its directors, officers, employees and agents (the "NWMO") and unless otherwise specifically stated, is made available to the public by the NWMO for information only. The contents of this report reflect the views of the author(s) who are solely responsible for the text and its conclusions as well as the accuracy of any data used in its creation. The NWMO does not make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information disclosed, or represent that the use of any information would not infringe privately owned rights. Any reference to a specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or preference by NWMO.

PUBLIC ATTITUDES REGARDING THE MANAGEMENT OF NUCLEAR WASTE IN CANADA

July 2004

Report Prepared for Nuclear Waste Management Organization (NWMO)



POLLARA Inc. (www.pollara.com), the largest Canadian public opinion and marketing research firm, helps its clients improve their performance through strategic research designed and analyzed by consultants who are experts in their fields.

Drawing on the talents of more than 650 employees located in 6 Canadian cities, POLLARA provides a full range of research services to leading global, national and local companies and to public and non-profit sector organizations. These services include quantitative and qualitative research and counsel in the areas of public affairs/public policy, employee satisfaction, customer value/satisfaction, new product development, advertising testing and tracking, branding, and consumer demand and pricing models. POLLARA consultants use innovative, leading-edge techniques to provide clients with strategic, data-driven advice.

Table of Contents

| l. | Intr | oduction | 2 |
|------|----------------|---|------------|
| II. | | thodology The Sample The Questionnaire Interviewing | 3 6 |
| III. | Exe | ecutive Summary | 8 |
| IV. | Key | / Findings | .12 |
| | - | Nuclear Waste in the Public Opinion Landscape | .12 .15 |
| | E. F. | Management Organization Support for NWMO Mandate Relative Importance of Various Management Traits | .25 |
| | G. H. I. | Waste Management Trade-OffsAgreement with Various Statements About Nuclear Waste Attitudes Toward Nuclear Power | .35 .44 |
| | J. K. | Personal Level of Interest and Involvement Concluding Remarks | .52 |

Appendices:

Interview Schedule Detailed Crosstabulations

I. Introduction

POLLARA is pleased to present the Nuclear Waste Management Organization (NWMO) with the following report of findings from interviews with a national sample of Canadian adults. The purpose of the survey was to solicit public input to explore the fundamental issues of nuclear waste management by continuing to track issues uncovered in previous research, as well as examine additional areas of inquiry. In part, themes were excerpted from the NWMO's first Discussion Document, "Asking the Right Questions?"

Canada currently has no long-term nuclear waste management solution and the issue of nuclear waste management is a contentious one. Key considerations which are explored in this research include:

- Awareness and support of NWMO mandates,
- Desirable traits and characteristics of Canada's solution for used nuclear fuel, and
- Interest and desire in involvement with the NWMO study.

II. Methodology

The following section outlines the methodology followed by POLLARA in conducting this study. Our stringent guidelines ensure accurate results that reflect the views of the Canadian public.

A. The Sample

In total, 2,641 interviews were conducted with Canadians across all regions of Canada, as identified in the following table. This includes a total of 1,888 interviews conducted at the national level, as well as 753 interviews conducted among residents in key communities which possess nuclear power generating facilities. Throughout this report, differences in opinions held by residents of nuclear station communities versus non-nuclear communities are highlighted.

A robust sample structure was designed to allow for statistically reliable analysis of the data at various sub-levels.

At the data processing stage, the data were weighted into their correct proportion using Statistics Canada targets for age, gender and population distribution. The sample frame and margins of error follow.

Table 1
National Sampling Frame

| Region | Base # Interviews | Regional Over- sample | Station Community Oversample | Total Interviews | Margin of Error |
|----------------------------------|----------------------|-----------------------------|------------------------------------|---------------------|--------------------|
| Atlantic (Total) | | | | 551 | ±4.2 |
| Newfoundla nd and Labrador | 20 | 46 | | 66 | |
| PEI | 5 | 12 | | 17 | |
| Nova Scotia | 36 | 82 | | 118 | |
| New Brunswick | 29 | 171 | 150 | 350 | ±5.2 |
| Quebec (Total) | | | | 450 | ±4.6 |
| Quebec | 286 | 14 | 150 | 450 | |
| Ontario (Total) | | | | 1119 | ±2.9 |
| Southern Ontario | 428 | 37 | 453 | 918 | |
| Northern Ontario | 34 | 167 | | 201 | |
| Man./Sask (Total) | | | | 202 | ±6.9 |
| Saskatchew an | 39 | 55 | | 94 | |
| Manitoba | 44 | 64 | | 108 | |
| West (Total) | | | | 319 | ±5.5 |
| Alberta | 119 | 31 | | 150 | |
| British Columbia | 160 | 9 | | 169 | |
| Total | 1,200 | 682 | 750 | 2,641 | ±1.9 |
| | | | | | |

To maintain consistency with previous NWMO research, this report features regional data comparisons between New Brunswick, the rest of Atlantic Canada, Quebec, Ontario, the Prairies (Manitoba and Saskatchewan) and the West (Alberta, BC and the Territories). In addition to standard demographic subgroups, this report also makes reference to various categories of Opinion Leaders.

i. Opinion Leader Definitions

In public opinion research, Canadians' are often segmented into groups which reflect the degree of influence an individual's opinions may have on others. Simply put, those whose opinions carry more "weight" in public discourse are referred to as *Opinion Leaders*. For the purpose of this research project, Opinion Leaders were defined through a simple index measure, whereby each respondent received a numeric score based on their responses to selected questions. The breakdown is as follows:

Table 2
Opinion Leader Classification

| Question | Response | Point Value |
|--|--|-------------------------|
| How often do you read a newspaper or watch TV news? | Every day | 3 |
| | Most days | 2 |
| | At least once a week | 1 |
| | Less than once a week | 0 |
| | Don't know | 0 |
| In the past year, have you personally done any of the following? | (6 Activities in Total) | |
| | Called or written a politician | 1 activity = 1 point |
| | Called into a radio or television talk show | 2 activities = 2 points |
| | Written a letter to the editor of a newspaper or magazine | 3 activities = 3 points |
| | Called or written to a company about a defective product or poor service | 4 activities = 4 points |
| | Attended a political meeting or rally | 5 activities = 5 points |
| | Signed a petition | 6 activities = 6 points |

Table 2
Opinion Leader Classification (Continued)

| Question | Response | Point Value |
|---|-------------|-------------|
| When you are talking about public issues with someone else and your viewpoints differ, how often do you persuade the other person to accept your point of view? | Very often | 3 |
| | Often | 2 |
| | Seldom | 1 |
| | Very Seldom | 0 |
| | Don't Know | 0 |

Responses to each of these three sections of questions were tallied, with scores ranging from a minimum of zero points to a possible maximum of twelve points. Individual scores were ranked as follows:

| 7 to 12 Points | Strong Opinion Leader | 783 people or 30% of the sample |
|----------------|------------------------|---------------------------------|
| 5 to 6 Points | Average Opinion Leader | 906 people or 34% of the sample |
| 0 to 4 Points | Weak Opinion Leaders | 952 people or 36% of the sample |

These classifications are used throughout the body of this report.

B. The Questionnaire

POLLARA designed the survey instrument, in close consultation with the NWMO. The questionnaire contained approximately 65 questions (including demographics) and took an average of 17-minutes to administer by telephone.

POLLARA takes full responsibility for the professionalism and fairness of the research instruments we use. POLLARA meets or exceeds the professional ethical requirements of the Canadian Association of Market Research Organizations (CAMRO).

C. Interviewing

Interviews for this study were conducted from POLLARA's state of the art tele-research centres in Toronto, Vancouver and Bathurst, New Brunswick. All interviews were conducted between June 17th and June 27th, 2004. POLLARA uses the latest in Computer-Assisted Telephone Interviewing (CATI) technology to eliminate data entry errors and ensure quick turnaround on research studies.

Senior POLLARA supervisors monitored approximately 10% of the interviews. All interviews are supervised 100% of the time to ensure data quality and the swift resolution of any problems. Interviewers are careful to respect the privacy and schedules of respondents. Refusals are graciously accepted, and interviews are rescheduled with willing respondents as many times as necessary.

III. Executive Summary

To follow are the key findings discussed in this report.

i. Scanning the Public Opinion Landscape

Results from this study suggest, by and large, that Canadians have not contemplated the management of nuclear waste to any great extent. On a national or local basis, nuclear energy and nuclear waste are each mentioned by less than 1% of Canadians as the most pressing issue. Similarly, when asked to rate a number of issues in terms of relative importance, Canadians place the greatest emphasis on health care and education, while nuclear waste ranks below the more generic "hazardous" waste.

ii. Attitudes Toward Nuclear Power

Overall, the public is divided on whether to support the use of nuclear power for generating electricity, with half indicating support and slightly fewer who are opposed. Overall, about one-in-ten Canadians are unsure of their stance on the issue. Among Canadians in provinces with nuclear power generating capabilities, similar proportions in Ontario (72%) and New Brunswick (68%) believe that nuclear power is an important source of provincial energy. By comparison, nearly three-quarters (72%) of Quebecers do not believe nuclear power is an important source of electricity.

Canadians are relatively unaware of the issues surrounding nuclear waste and its management, which is indicative of the general lack of knowledge that extends to various facets of nuclear waste management. Specifically, three-quarters of Canadians either do not know or underestimate the hazard as less than 1,000 years.

iii. Awareness of, and Attitudes Toward NWMO

The vast majority of Canadians report not having heard, seen or read anything recently about an organization tasked with examining the used nuclear fuel issue.

Among the one-in-ten Canadians who have heard, seen or read something about such an organization, two-in-five report seeing an article in the newspaper, while one-quarter believe they saw something on television. Slightly fewer recall hearing an interview on the radio or saw an advertisement or notice in the newspaper.

When asked to comment specifically on what they saw, read or heard, one-third cannot recall, or do not know any specific details, while about one-in-five mention an organization providing solutions and/or monitoring the situation. Meanwhile, one-in-ten of those who report hearing something equate their knowledge with a specific disposal location, the risks/hazards/dangers of nuclear waste or the simple fact that the issue is under debate.

After being read a description of NWMO's mandate, four-in-five Canadians report that they either strongly or somewhat support the Organization's mandate. Conversely, one-in-ten indicate opposition, while the remainder are unsure of their position.

Among those who are opposed, rationale includes the perception that nuclear waste is unsafe or hazardous and that there is a need for more information and education on the issue. Slightly fewer indicate that they are opposed to nuclear energy generation or that they have an inherent lack of trust of such organizations with government-endorsed mandates.

iv. Perceptions of Nuclear Waste Management

All respondents were read a series of eighteen factors which are often associated with various nuclear waste management proposals. They were subsequently asked to evaluate the importance of each trait on a scale from zero to ten where zero means *not at all important* and ten means *very important*. The factors which are ranked highest include those associated with some form of "protection", including: protecting the health and safety of future generations, workers, the current generation, and the environment. The ability to eternally isolate nuclear waste and a desire to be fair to both the current and future generations each received average scores of nine out of ten.

Generating only slightly lower importance scores include traits such as the prevention of terrorist access to nuclear waste, the assurance that communities that are most likely to be affected may be involved in the decision-making process, ensuring fairness to all living things, and the guaranteeing flexibility for future improvements. Also associated with flexibility, Canadians feel it is somewhat important to ensure the management approach is flexible for future generations to make changes or modifications, and that there is enough money to meet future management needs. Respondents also feel it is important that decisions are reversible and that the management approach does not trigger negative effects, either socially or economically.

Aside from the preceding list of imperative considerations, the management of nuclear waste involves complex trade-off decisions. Respondents were presented a variety of management scenarios and asked to state their preferences.

A strong majority prefers to transport waste to a remote location by truck or rail as opposed to keeping the waste near large population centres, where it is now.

Canadians are less decisive on whether to bury nuclear waste underground, where it may be safer from external threats versus keeping it above ground, where it is easier to access and monitor, with similar proportions supporting each option.

Likewise, half of respondents prefer storage at a centralized, dedicated site, as opposed to storage at seven nuclear power plant or research sites across the country, as is currently the case.

Sixty-five percent of Canadians prefer to implement solutions now, so as not to leave the problem to future generations to solve. In contrast, 31% would rather focus current efforts on research and allow future generations to decide how to handle the issue.

v. Next Steps in Nuclear Waste Management

Most Canadians feel that now is the time to take control of the nuclear waste management situation. Specifically, the vast majority of respondents agree that since our generation is the one which created the nuclear waste, we should be the ones to decide on and implement an approach to manage it. Still, this desire to take action now is tempered by the fact that half of Canadians feel that scientific research will soon produce a technology that will render nuclear waste safe by eliminating its radioactivity and allowing it to become part of the natural environment again.

Moving forward, more than three-quarters of Canadians report that they are very or somewhat interested in learning more about the management of used nuclear fuel, while 22% are either not very or not at all interested.

Despite this expression of interest however, nearly half of respondents indicate that they would *not* like to be personally involved in the discussion of a plan for the management of used nuclear fuel as part of NWMO's study.

Each of these findings is discussed in greater detail throughout the body of this report.

IV. Key Findings

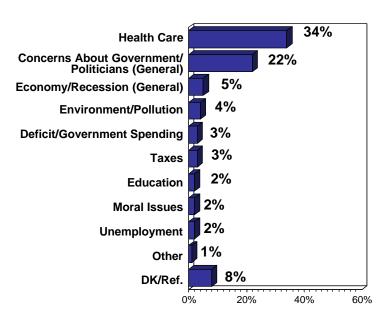
A. Nuclear Waste in the Public Opinion Landscape

i. Most Important Issue Facing Canada

To determine where the issue of nuclear waste management fits into the public consciousness, Canadians were asked to indicate, in their own words, the most important issue facing Canada and their own local community today. When considering the most important national issue, one-third (34%) mention health care, while one-in-five (22%) cite concerns about government or politicians. Other issues mentioned with less frequency include the economy (5%), the environment (4%), government spending and taxes (3%, respectively).

Figure 1

Most Important Issue Facing Canada



Q: In your opinion, what is the single most important issue facing Canada today? (DO NOT READ, ACCEPT FIRST MENTION ONLY)

Quebecers (19%) are the least likely of all Canadians to cite health care as the most important national issue. Conversely, half (53%) of these residents mention concerns about government or politicians.

Table 3
Most Important Issue Facing Canada, By Region

| | Health Care % | Concerns Pol./Gov't % | Economy % | Env't % |
|----------------------------|---------------------|-----------------------------|--------------|------------|
| Total | 34 | 22 | 5 | 4 |
| Non-Nuclear Communities | 34 | 22 | 5 | 4 |
| Nuclear Communities | 38 | 30 | 3 | 2 |
| | | | | |
| New Brunswick | 59 | 9 | 2 | 1 |
| Other Atlantic | 51 | 9 | 6 | 1 |
| Quebec | 19 | 53 | 3 | 2 |
| Ontario | 38 | 15 | 7 | 5 |
| Man./Sask. | 35 | 7 | 3 | 2 |
| Alberta/BC | 35 | 12 | 6 | 4 |

ii. Most Important Issue Facing the Community

In comparison, 19% of Canadians feel health care is the most important issue facing their *local community*. One-in-twenty mention unemployment (6%), concerns about politicians, crime and personal safety, the economy, the environment or taxes (5%, respectively) as the most important local issue.

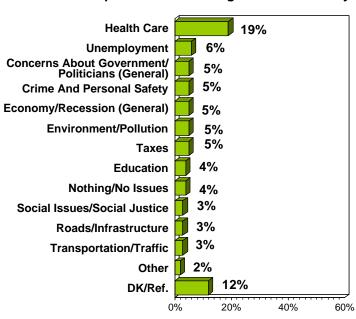


Figure 2

Most Important Issue Facing Local Community

On a national or local basis, nuclear energy and nuclear waste are each mentioned by less than 1% of Canadians as the most pressing issue.

Since 2003, the perceived importance of local issues has remained relatively stable. Health care has risen by 4%, while concerns about politicians and government – an issue which was scarcely on the public radar last year – has increased by 5%. Conversely, the proportion of Canadians who are unable to name the most important local issue has declined by five percentage points.

Q: And what is the most important issue facing your local community today, in other words, the one that concerns you personally the most? (PROBE: And what exactly do you mean by that?) (DO NOT READ, ACCEPT FIRST MENTION ONLY)

B. Relative Importance of Various Issues

In addition to gauging Canadians' most important issues on a top-of-mind basis, respondents were asked to consider the relative importance of a number of issues and rate them on a scale from zero to ten where zero means *not at all important* and ten means *extremely important*. In this context, Canadians place the greatest emphasis on health care (mean score of 8.9), followed by education (8.5). Issues scoring at least 7 out of 10 include hazardous waste (7.4), roads and highways (7.3), and *nuclear waste* (7.2). Less important issues, according to Canadians, include climate change (6.4) and household garbage (6.3).

Examining by top-3 box score (8, 9 or 10 out of 10), nuclear waste (54%) ranks fourth behind health care (85%), education (79%) and hazardous waste (56%). These scores remain relatively unchanged since 2003. Specifically, 31% (down 4%) of Canadians now rate nuclear waste as extremely important, with a maximum score of ten out of ten.

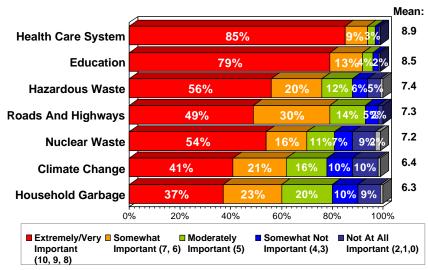


Figure 3
Relative Importance of Various Issues

Q: Now I would like to read you a list of issues that some people in Canada have said concern them. Please tell me how important each of these issues is to you personally by using a scale from 0 to 10, where 0 means "not at all important" and 10 means it is "extremely important". Here is the first one: (ROTATE).

Regionally, residents of Manitoba and Saskatchewan regard household garbage (5.5) with somewhat less importance than other Canadians. Prairie residents (6.6) and Western Canadians (6.7) are less likely than are other Canadians to believe nuclear waste to be an important issue.

Table 4
Relative Importance of Various Issues, By Region (Mean Score)

| | Health Care # | Hhld. Garbage # | Haz. Waste # | Nuclear Waste # | Roads/ Hwys # | Climate Change # | Eductn. # |
|----------------------------|---------------------|-----------------------|--------------------|-----------------------|---------------------|------------------------|--------------|
| Total | 8.9 | 6.3 | 7.4 | 7.2 | 7.3 | 6.4 | 8.5 |
| Non-Nuclear Communities | 8.9 | 6.3 | 7.4 | 7.2 | 7.3 | 6.4 | 8.5 |
| Nuclear Communities | 9.1 | 6.7 | 7.6 | 7.3 | 7.2 | 6.2 | 8.6 |
| | | | | | | | |
| New Brunswick | 9.3 | 6.5 | 7.8 | 7.5 | 7.8 | 6.6 | 8.8 |
| Other Atlantic | 9.3 | 6.7 | 7.7 | 7.0 | 7.7 | 6.0 | 8.8 |
| Quebec | 9.0 | 6.4 | 7.9 | 7.6 | 7.4 | 6.7 | 8.6 |
| Ontario | 8.9 | 6.7 | 7.4 | 7.2 | 7.1 | 6.4 | 8.5 |
| Man./Sask. | 9.0 | 5.5 | 7.2 | 6.6 | 7.8 | 5.9 | 8.5 |
| Alberta/BC | 8.8 | 5.7 | 6.9 | 6.7 | 7.0 | 6.1 | 8.3 |

Women tend to report slightly higher importance ratings than men in the areas of health care, household garbage, hazardous and nuclear waste.

Table 5
Relative Importance of Various Issues, By Genderation (Mean Score)

| | | | - | - | | | |
|----------------|---------------------|-----------------------|--------------------|-----------------------|---------------------|------------------------|--------------|
| | Health Care # | Hhld. Garbage # | Haz. Waste # | Nuclear Waste # | Roads/ Hwys # | Climate Change # | Eductn. # |
| Total | 8.9 | 6.3 | 7.4 | 7.2 | 7.3 | 6.4 | 8.5 |
| Men | 8.6 | 5.9 | 7.0 | 6.7 | 7.2 | 6.1 | 8.3 |
| Women | 9.2 | 6.7 | 7.8 | 7.6 | 7.3 | 6.7 | 8.8 |
| | | | | | | | |
| Women 18-34 | 9.1 | 6.4 | 7.5 | 7.4 | 7.0 | 6.7 | 9.1 |
| Men 18- 34 | 8.7 | 6.0 | 7.0 | 6.5 | 7.2 | 6.3 | 8.6 |
| Women 35-54 | 9.3 | 6.6 | 7.8 | 7.5 | 7.3 | 6.7 | 8.9 |
| Men 35- 54 | 8.7 | 5.8 | 7.0 | 6.7 | 7.2 | 6.1 | 8.3 |
| Women 55+ | 9.1 | 7.0 | 8.0 | 7.8 | 7.5 | 6.5 | 8.4 |
| Men 55+ | 8.5 | 6.0 | 7.1 | 6.7 | 7.4 | 5.9 | 8.0 |

Strong, average and weak opinion leaders tend to report similar importance levels for the various issues tested.

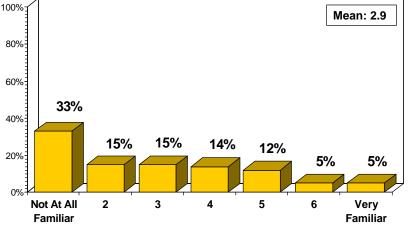
C. **Awareness of Nuclear Waste**

i. **Familiarity with the Management of Nuclear Waste**

In general, the opinions of respondents who are familiar with, and interested in an issue tend to differ from those who are removed from the subject. To determine the extent to which nuclear waste is an issue of interest in Canada, respondents were asked to rate their overall familiarity on a scale from one to seven where one is not at all familiar and seven is very familiar. Overall, Canadians rate their awareness of nuclear waste and its management an average of 2.9. Specifically, one-third (33%) of Canadians report that they are not at all familiar with how nuclear waste is managed in Canada. This figure is 5% lower than recorded in 2003.

Familiarity with the Management of Nuclear Waste

Figure 4



Q: Using a scale between one and seven where one means you are not at all familiar and seven means you are very familiar, overall how familiar would you say you are with nuclear waste and how it is managed in Canada?

On an average score basis, residents of nuclear communities (3.4) are among the most likely to be familiar with nuclear waste and how it is managed in Canada, while Atlantic Canadians outside of New Brunswick (2.4) and residents of Western Canada are the least likely to report familiarity.

Table 6
Awareness of Nuclear Waste and Its Management In Canada
(Mean Score out of Seven)

| | Awareness # |
|-------------------------|----------------|
| Total | 2.9 |
| Non-Nuclear Communities | 2.9 |
| Nuclear Communities | 3.4 |
| | |
| New Brunswick | 2.9 |
| Other Atlantic | 2.4 |
| Quebec | 3.1 |
| Ontario | 3.1 |
| Man./Sask. | 2.6 |
| Alberta/BC | 2.5 |

Canadians who are most likely to state they are *completely unfamiliar* with nuclear waste and its management (score of one out of seven) include:

- Less educated respondents (43% among those with a high school education or less);
- Women (41% versus 26% of men);
- Younger Canadians (40% among 18 to 34 year olds); and
- Residents of non-nuclear communities (34% versus 23% among nuclear communities);

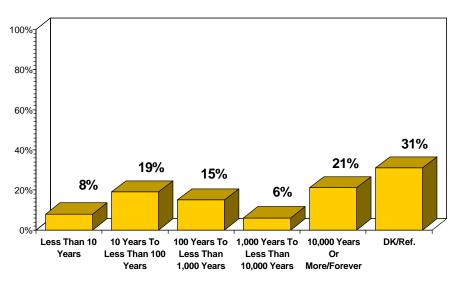
Conversely, Canadians with a higher than average level of familiarity about nuclear waste and its management include:

- Those who have a household member working in the electricity generation or distribution sector (mean score of 4.6 out of 7);
- Men aged 55 years and over (3.5); and
- Strong opinion leaders (3.4, versus 2.4 among weak opinion leaders).

ii. Perceived Timeframe of Nuclear Fuel Hazard

This general lack of knowledge extends to various facets of nuclear waste. Specifically, a plurality of Canadians (31%, up 1% from 2003) is unable to guess the timeframe at which nuclear waste is no longer hazardous. Just over one-quarter (27%, down 3%) believes the timeframe is less than 100 years, while slightly fewer offer 100 to less than 10,000 years (21%, down 4%). An equal proportion (21%, up a significant 10%) believes that nuclear waste remains hazardous for 10,000 years or more.

Figure 5
Perceived Timeframe of Nuclear Fuel Hazard



Q: Whenever nuclear power is used to generate electricity, some used nuclear fuel is leftover. To the best of your knowledge, or if you had to guess, for how long does this used nuclear fuel have to be managed before it is no longer hazardous? (DO NOT READ LIST) (ACCEPT ONE MENTION)

Canadians who are most likely to believe that nuclear waste is hazardous for "10,000 years or more/forever" include:

- Canadians who report being familiar with nuclear waste and its management - 29%, versus 18% among those who are not familiar;
- Men 27%, versus 15% of women who hold this belief;
- Those who are affiliated with electricity generation/distribution 26%, versus 18% among those with no association;
- Affluent Canadians 26% among respondents with household incomes of \$75,000 or more, versus 18% of those earning less than \$55,000;
- Western Canadians (26%) and Ontarians (24%);
- Highly educated Canadians 24% among those with a university background, versus 21% of college grads and 17% with high school or less:
- Older Canadians 23% among 45 year olds and over, versus 16% among the 18 to 34 year age cohort;
- Strong and average opinion leaders 23%, versus 16% among those classified as "weak"; and
- English-speaking Canadians 23%, versus 15% of Francophones.

D. Familiarity with the Nuclear Waste Management Organization

The vast majority of Canadians (90%) report not having heard, seen or read anything recently about an organization tasked with examining the used nuclear fuel issue. This proportion remains unchanged versus last year (91% unfamiliar).

Overall, 9% of Canadians report awareness of such an organization. Canadians living in station communities (15%) are somewhat more likely than their non-nuclear community counterparts (8%) to be aware of the organization. On a regional basis, one-in-ten residents of New Brunswick (12%), Quebec (11%) and Ontario (10%) report awareness.

Table 7

Awareness of Nuclear Waste Management Organization, By Region

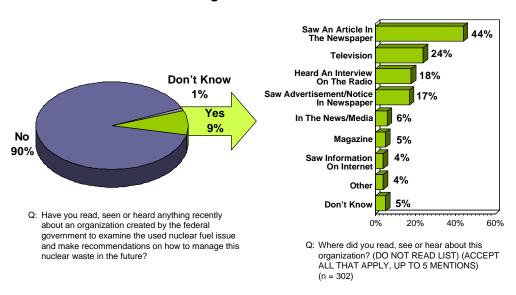
| | Aware % | Unaware % |
|----------------------------|------------|--------------|
| Total | 9 | 90 |
| Non-Nuclear Communities | 8 | 90 |
| Nuclear Communities | 15 | 84 |
| | | |
| New Brunswick | 12 | 86 |
| Other Atlantic | 7 | 91 |
| Quebec | 11 | 88 |
| Ontario | 10 | 89 |
| Man./Sask. | 7 | 91 |
| Alberta/BC | 5 | 93 |

In addition, respondents with ties to the electricity generation and/or distribution sector (21%), those who are familiar with nuclear waste and its management (16%), and Canadians aged 55 and over (13%) are among the most likely to have heard of an organization working in this capacity. Similarly, strong opinion leaders (12%) are slightly more likely than Canadians overall to report awareness.

i. Source of Information

Among the 9% of Canadians who have heard, seen or read something about such an organization, 44% report seeing an article in the newspaper, while one-quarter (24%) believe they saw something on television. Slightly fewer recall hearing an interview on the radio (18%) or saw an advertisement or notice in the newspaper (17%).

Figure 6
Awareness of Organization Information Source



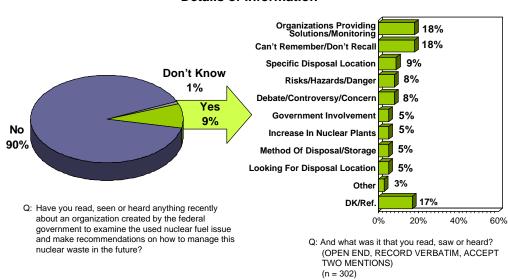
ii. Details Recalled

When respondents who indicate awareness were subsequently asked to comment specifically on what they saw, read or heard, one-third (35%) cannot recall or do not know any specific details, while about one-in-five (18%) mention an organization providing solutions and/or monitoring the situation. Meanwhile, one-in-ten of those who report hearing something equate their knowledge with a specific disposal location (9%), the risks/hazards/dangers of nuclear waste (8%) or the fact that the issue is under debate (8%).

Figure 7

Awareness of Organization

Details of Information

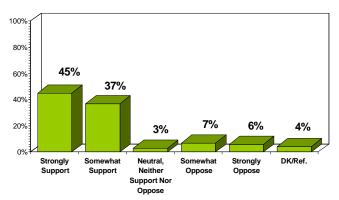


E. Support for NWMO Mandate

i. Level of Overall Support for Mandate

After being read a description of the NWMO mandate (as indicated in the graph below), four-in-five Canadians (82%, down an insignificant 2% from last year) report that they either strongly (45%, down 3%) or somewhat (37%, up 1%) support the Organization's mandate. Conversely, one-in-ten (13%, up 3%) indicate opposition, while 4% (unchanged) are unsure of their position and 3% (up 2%) neither support nor oppose the mandate, as it was read.

Figure 8
Support for NWMO Mandate



Q: Two years ago, the federal government passed a law to create the Nuclear Waste Management Organization, also known by its initials as the NWMO. I am going to read you a brief statement about the mandate of the NWMO.

The NWMO is an organization created in the fall of 2002 to recommend a long-term approach for managing used nuclear fuel produced by Canada's electricity generators. While nuclear waste in Canada is currently being safely managed, no permanent long-term management solution has been adopted.

The first job of the NWMO is to recommend a plan to the government of Canada for the management of this used nuclear fuel by November 2005. In developing this plan, the NWMO is required to consult stakeholders, experts and the general public as it develops a comprehensive, integrated and economically sound approach for Canada.

Based on what you have just heard, do you strongly support, somewhat support, somewhat oppose or strongly oppose the mandate of the Nuclear Waste Management Organization?

It is interesting to note that approximately eight-in-ten Canadians support the mandate of the NWMO regardless of demographic background or region of residence. Among the various sub-groups analyzed, residents of Western Canada are slightly less likely than their regional counterparts to report support for the NWMO's mandate (75% support), meanwhile, Ontarians (86%), are the most supportive.

Table 8
Level of Support/Opposition for NWMO Mandate, By Region

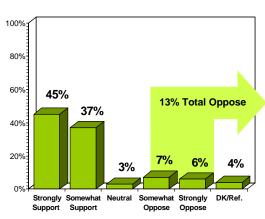
| | Strongly Support % | Somewhat Support % | Neutral % | Somewhat Oppose % | Strongly Oppose % |
|----------------------------|--------------------------|--------------------------|--------------|-------------------------|-------------------------|
| Total | 45 | 37 | 3 | 7 | 6 |
| Non-Nuclear Communities | 44 | 37 | 3 | 7 | 6 |
| Nuclear Communities | 49 | 34 | 2 | 7 | 5 |
| | | | | | |
| New Brunswick | 45 | 37 | 2 | 7 | 5 |
| Other Atlantic | 43 | 37 | - | 8 | 5 |
| Quebec | 46 | 34 | 3 | 9 | 7 |
| Ontario | 51 | 35 | 3 | 4 | 4 |
| Man./Sask. | 36 | 46 | 2 | 7 | 5 |
| Alberta/BC | 35 | 40 | 3 | 8 | 8 |

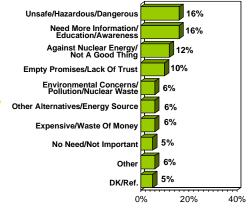
Strong and average opinion leaders are more likely to support the mandate of the NWMO (85%) than their less influential counterparts (75%).

ii. Reasons for Opposition

Among the 13% of Canadians who are opposed to the NWMO mandate (total of 315 individuals), rationale includes the perception that nuclear waste is unsafe or hazardous (16%) and that there is a need for more information and education on the issue (16%). Slightly fewer indicate that they are opposed to nuclear energy generation (12%) or that they have an inherent lack of trust (10%). Six percent of those opposed cite environmental concerns, the desire to investigate alternative energy sources, or a feeling that the organization is "a waste of money" (respectively).

Figure 9
Reasons for Opposing NWMO Mandate





Q: Based on what you have just heard, do you strongly support, somewhat support, somewhat oppose or strongly oppose the mandate of the Nuclear Waste Management Organization? Q: (IF OPPOSE SOMEWHAT OR STRONGLY)
And why to you say that? (OPEN END,
RECORD RESPONSE VERBATIM, ACCEPT
TWO MENTIONS)

Demographically, women who oppose (20%) are more likely than men who oppose (12%) to call for more information and education, while men (11%) are slightly more likely to be less trusting of the Organization's mandate (versus 8% among women).

Thirty-five to forty-four year olds who oppose (8%) are the least concerned with the dangers of nuclear waste, while young Canadians (25%) are the most likely to cite the need for more education. Interestingly, the 18 to 34-year old cohort is also the least likely to report that they oppose the Organization's mandate because they are against nuclear energy production (6%). Trustworthiness is a non-issue for Canadians under 35.

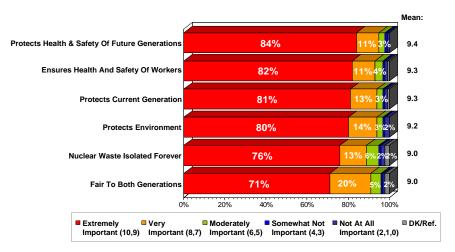
Table 9
Reasons for Opposing NWMO Mandate, By Age and Gender

| | Unsafe/ Hazardous/ Dangerous % | Need Info./ Education % | Against Nuclear Energy % | Lack of Trust % |
|---------------|---|-------------------------------|-----------------------------------|-----------------------|
| Total (n=315) | 16 | 16 | 12 | 10 |
| Men | 18 | 12 | 13 | 11 |
| Women | 15 | 20 | 11 | 8 |
| | | | | |
| 18 to 34 | 12 | 25 | 6 | - |
| 35 to 44 | 8 | 13 | 14 | 15 |
| 45 to 54 | 15 | 18 | 13 | 14 |
| 55+ | 27 | 10 | 15 | 10 |

F. Relative Importance of Various Management Traits

To further focus and hone future discussions about plans for nuclear waste management, all respondents were read a series of eighteen (18) factors which are often associated with various nuclear waste management proposals. They were subsequently asked to evaluate the importance of each trait on a scale from zero to ten where zero means *not* at all important and ten means *very important*. As illustrated in the graph below, six of the eighteen characteristics elicit average scores of nine or higher, suggesting that these are considered to be among the most important considerations. The factors which are ranked highest include those associated with some form of "protection", including: protecting the health safety of future generations (9.4), workers (9.3) the current generation (9.3) and the environment (9.2). The ability to eternally isolate nuclear waste and a desire to be fair to both the current and future generations each received average scores of nine out of ten.

Figure 10
Relative Importance of Various Management Traits



Q: I am going to read you a list of traits which some people have suggested are important for Canada's solution to the management of used nuclear fuel. For each item, please use a scale from zero to ten where zero means not at all important and ten means very important, to indicate the relative importance of each item. The first/next one is... (ROTATE STATEMENTS)

Generating only slightly lower importance scores include traits such as the prevention of terrorist access to nuclear waste, the assurance that communities that are most likely to be affected may be involved in the decision-making process, ensuring fairness to all living things, and the guaranteeing flexibility for future improvements (8.8 out of ten, respectively). Also associated with flexibility, Canadians feel it is somewhat important to ensure the management approach is flexible for future generations to make changes or modifications (8.6), and that there is enough money to meet future management needs (8.4). Respondents also feel it is important that decisions are reversible (8.3) and that the management approach does not trigger negative effects, either socially (8.2) or economically (8.1).

Mean: 72% 8.8 **Prevents Terrorist Access** 68% Directly Affected Involved In Decision-Making 67% Fair To All Living Things 63% **Enough Flexibility For Future** Flexibility To Change Way Fuel Is Managed 58% Adequate Money 54% 53% Decisions Are Reversible Does Not Negatively Affect Cultural/Social Life 54% No Negative Economic Affect **Ensures Overall Cost** 48% 45% Opportunity In Decision-Making Places No Obligations On Future Generations 40% 20% 40% 60% 80% ■ Extremely Verv ■ Moderately ■ Somewhat Not ■ Not At All ■ DK/Ref. Important (10,9) Important (8,7) Important (6,5) Important (4,3) Important (2.1.0)

Figure 11

Relative Importance of Various Management Traits (Continued)

Q: I am going to read you a list of traits which some people have suggested are important for Canada's solution to the management of used nuclear fuel. For each item, please use a scale from zero to ten where zero means not at all important and ten means very important, to indicate the relative importance of each item. The first/next one is... (ROTATE STATEMENTS)

It is with slightly less vigor that Canadians insist that the management approach allow for the inclusion of all interested parties, regardless of whether they are directly affected (8.0) and that the overall cost is reasonable (8.0). There is some acceptance that future generations will be obliged to manage nuclear waste. While two-in-five (40%) feel this is a very important consideration, freeing future generations of obligation is ranked lowest of all the characteristics tested (7.1).

Average importance scores for each attribute are generally stable across various demographic and regional sub-groups, as indicated in the tables below.

Table 10
Relative Importance of Various Management Traits, By Region

| • | | | _ | | | | |
|--|------------|---------|-------------------|---------|---------|--------------------|------------------|
| | Total # | NB # | Rest Atl. # | PQ # | ON # | Man/ Sask. # | Alta/ BC # |
| Fair to our & future generations | 9.0 | 9.1 | 9.2 | 9.0 | 9.0 | 8.7 | 9.0 |
| Isolated from human contact forever | 9.0 | 9.3 | 9.6 | 9.1 | 8.9 | 9.0 | 9.0 |
| Fair to humans & non- human living things | 8.8 | 9.0 | 9.4 | 8.8 | 8.8 | 8.9 | 8.8 |
| Reduces potential terrorist access | 8.8 | 9.1 | 9.2 | 8.9 | 8.8 | 8.6 | 8.7 |
| Protects the environment | 9.3 | 9.4 | 9.6 | 9.2 | 9.2 | 9.2 | 9.2 |
| Reasonable overall cost | 8.0 | 8.4 | 8.5 | 8.0 | 7.8 | 8.1 | 7.9 |
| Protects health & safety of current generation | 9.3 | 9.3 | 9.6 | 9.3 | 9.3 | 9.2 | 9.3 |
| Economic potential of surrounding communities | 8.1 | 8.4 | 8.7 | 7.7 | 8.1 | 8.2 | 8.1 |
| All have an opportunity to participate in decision making | 8.0 | 8.1 | 8.4 | 8.2 | 7.8 | 7.9 | 7.8 |
| Flexible for improvements in scientific & technical knowledge | 8.8 | 8.9 | 9.0 | 8.7 | 8.8 | 8.7 | 8.7 |
| Protects health & safety of workers building the facilities | 9.3 | 9.4 | 9.5 | 9.3 | 9.3 | 9.2 | 9.3 |
| Money is available when needed | 8.4 | 8.7 | 8.9 | 8.5 | 8.5 | 8.0 | 8.1 |
| No obligations on future generations to manage waste | 7.1 | 7.7 | 7.6 | 7.3 | 6.9 | 7.0 | 7.0 |
| Cultural and social life of surrounding communities | 8.2 | 8.4 | 8.9 | 8.1 | 8.1 | 8.4 | 8.1 |
| Protects health & safety of future generations | 9.4 | 9.5 | 9.7 | 9.4 | 9.4 | 9.3 | 9.4 |
| Communities affected participate in decision making | 8.8 | 8.9 | 9.2 | 8.8 | 8.8 | 8.9 | 8.9 |
| Flexibility for future generations to change the way fuel is managed | 8.6 | 8.7 | 9.0 | 8.5 | 8.6 | 8.5 | 8.6 |
| Ensures decisions are reversible | 8.3 | 8.6 | 8.8 | 8.3 | 8.3 | 8.4 | 8.3 |

^{*} Note: Table has been reversed to show all statements.

Table 11
Relative Importance of Various Management Traits, By Gender

| | Total # | Male # | Female # |
|--|------------|-----------|-------------|
| Fair to our & future generations | 9.0 | 8.9 | 9.2 |
| Isolated from human contact forever | 9.0 | 8.8 | 9.2 |
| Fair to humans & non-human living things | 8.8 | 8.6 | 9.0 |
| Reduces potential terrorist access | 8.8 | 8.7 | 8.9 |
| Protects the environment | 9.3 | 9.1 | 9.4 |
| Reasonable overall cost | 8.0 | 7.8 | 8.1 |
| Protects health & safety of current generation | 9.3 | 9.2 | 9.4 |
| Economic potential of surrounding communities | 8.1 | 7.8 | 8.3 |
| All have an opportunity to participate in decision making | 8.0 | 7.7 | 8.2 |
| Flexible for improvements in scientific & technical knowledge | 8.8 | 8.7 | 8.8 |
| Protects health & safety of workers building the facilities | 9.3 | 9.2 | 9.4 |
| Money is available when needed | 8.4 | 8.3 | 8.5 |
| No obligations on future generations to manage waste | 7.1 | 7.1 | 7.1 |
| Cultural and social life of surrounding communities | 8.2 | 7.9 | 8.4 |
| Protects health & safety of future generations | 9.4 | 9.3 | 9.5 |
| Communities affected participate in decision making | 8.8 | 8.7 | 8.9 |
| Flexibility for future generations to change the way fuel is managed | 8.6 | 8.5 | 8.7 |
| Ensures decisions are reversible | 8.3 | 8.2 | 8.5 |

^{*} Note: Table has been reversed to show all statements.

Table 12
Relative Importance of Various Management Traits, By Age

| • | | _ | | | _ |
|--|------------|------------|------------|------------|----------|
| | Total # | 18-34 # | 35-44 # | 45-54 # | 55+ # |
| Fair to our & future generations | 9.0 | 8.9 | 8.8 | 9.2 | 9.1 |
| Isolated from human contact forever | 9.0 | 8.9 | 9.0 | 9.2 | 9.1 |
| Fair to humans & non-human living things | 8.8 | 8.7 | 8.7 | 9.0 | 8.9 |
| Reduces potential terrorist access | 8.8 | 8.4 | 8.7 | 9.1 | 9.0 |
| Protects the environment | 9.3 | 9.2 | 9.3 | 9.3 | 9.2 |
| Reasonable overall cost | 8.0 | 7.8 | 7.8 | 7.9 | 8.2 |
| Protects health & safety of current generation | 9.3 | 9.2 | 9.3 | 9.4 | 9.3 |
| Economic potential of surrounding communities | 8.1 | 7.8 | 7.9 | 8.2 | 8.2 |
| All have an opportunity to participate in decision making | 8.0 | 8.0 | 7.8 | 8.0 | 8.0 |
| Flexible for improvements in scientific & technical knowledge | 8.8 | 8.5 | 8.6 | 9.0 | 8.9 |
| Protects health & safety of workers building the facilities | 9.3 | 9.2 | 9.2 | 9.5 | 9.3 |
| Money is available when needed | 8.4 | 8.1 | 8.3 | 8.4 | 8.6 |
| No obligations on future generations to manage waste | 7.1 | 7.0 | 6.9 | 7.2 | 7.2 |
| Cultural and social life of surrounding communities | 8.2 | 8.0 | 8.0 | 8.4 | 8.2 |
| Protects health & safety of future generations | 9.4 | 9.3 | 9.4 | 9.6 | 9.4 |
| Communities affected participate in decision making | 8.8 | 8.7 | 8.7 | 9.0 | 8.9 |
| Flexibility for future generations to change the way fuel is managed | 8.6 | 8.4 | 8.4 | 8.8 | 8.7 |
| Ensures decisions are reversible | 8.3 | 8.2 | 8.3 | 8.5 | 8.3 |

^{*} Note: Table has been reversed to show all statements.

Table 13
Relative Importance of Various Management Traits,
By Nuclear Community Status

| | | - | |
|---|--------------------|---------------------------|-------------------------------|
| | Total # | Nuclear Community # | Non Nuclear Community # |
| Fair to our & future generation | s 9.0 | 9.0 | 8.8 |
| Isolated from human contact forever | 9.0 | 9.0 | 9.0 |
| Fair to humans & non-human living things | 8.8 | 8.8 | 8.7 |
| Reduces potential terrorist access | 8.8 | 8.8 | 8.9 |
| Protects the environment | 9.3 | 9.2 | 9.2 |
| Reasonable overall cost | 8.0 | 8.0 | 8.0 |
| Protects health & safety of current generation | 9.3 | 9.3 | 9.2 |
| Economic potential of surrounding communities | 8.1 | 8.1 | 8.1 |
| All have an opportunity to participate in decision making | 8.0 | 7.9 | 7.8 |
| Flexible for improvements in scientific & technical knowledge | ge 8.8 | 8.8 | 8.6 |
| Protects health & safety of workers building the facilities | 9.3 | 9.3 | 9.3 |
| Money is available when need | led 8.4 | 8.4 | 8.4 |
| No obligations on future generations to manage waste | 7.1 | 7.1 | 7.2 |
| Cultural and social life of surrounding communities | 8.2 | 8.2 | 8.1 |
| Protects health & safety of future generations | ^{ure} 9.4 | 9.4 | 9.3 |
| Communities affected particip in decision making | ate 8.8 | 8.8 | 8.6 |
| Flexibility for future generation to change the way fuel is managed | ns 8.6 | 8.6 | 8.6 |
| Ensures decisions are reversi | ble 8.3 | 8.3 | 8.2 |

^{*} Note: Table has been reversed to show all statements.

G. Waste Management Trade-Offs

Aside from the preceding list of imperative considerations, the management of nuclear waste involves complex, value-laden trade-off decisions. To give Canadians a sense of the difficult decisions that are to be made in this process, and to elicit support for each possibility, respondents were presented a variety of management scenarios and asked to state their preferences.

Q: (ROTATE ORDER) Keeping the **Keep Near Population Centres** 19% nuclear waste where it is now which Transport To Remote Location 69% may be near large population Neither Of These centres OR having the waste 4% transported to a remote location by DK/Ref 8% truck or rail. Q: (ROTATE ORDER) Having the waste Above Ground 1 40% above ground, where it is easy to access 49% **Buried Underground** and monitor it OR having the waste buried 3% underground where it may be safer from **Neither Of These** external threats such as terrorist acts, but DK/Ref is more difficult to see and monitor. Centralized Site 50% Q: (ROTATE ORDER) Storing the waste at one centralized, dedicated site OR storing the 40% Sites Across The Country waste at seven nuclear power plant of **Neither Of These** research sites across the country, as it is DK/Ref O: (ROTATE ORDER) Implement solutions Solutions Now 65% now so as not to leave the problem to 31% Focus On Research future generations to solve OR focus our Neither Of These 2% efforts on research and allow future generations to decide what they want to DK/Ref. **1**2% 40% 60% 0% 20% 80%

Figure 12
Nuclear Waste Management Trade-Offs

Q: When deciding how best to deal with Canada's used nuclear fuel waste, some difficult decisions will have to be made. Given the following choices, which is more important to you? (RANDOMIZE ORDER OF QUESTIONS Q38 to Q41, and ROTATE ORDER OF STATEMENTS WITHIN EACH QUESTION)

A strong majority (69%) prefers to transport waste to a remote location by truck or rail as opposed to keeping the waste near large population centres, where it is now (19%).

Canadians are less decisive on whether to bury nuclear waste underground, where it may be safer from external threats (49%) versus keeping it above ground, where it is easier to access and monitor (40%).

Half (50%) of respondents prefer storage at a centralized, dedicated site, as opposed to storage at seven nuclear power plant or research sites across the country (40%), as is currently the case.

Sixty-five percent of Canadians prefer to implement solutions now, so as not to leave the problem to future generations to solve. In contrast, 31% would rather focus current efforts on research and allow future generations to decide how to handle the issue.

At least three-quarters of residents in Quebec (77%) and Atlantic Canada (excluding New Brunswick) (76%) prefer to have nuclear waste transported to a remote location, away from population centres.

Table 14

Trade Off: Transport to Remote Location or Keep Near Population Centres, By Region

| | Transport to Remote Location % | Keep Near Population Centres % |
|-------------------------|--------------------------------------|---|
| Total | 69 | 19 |
| Non-Nuclear Communities | 69 | 19 |
| Nuclear Communities | 67 | 25 |
| | | |
| New Brunswick | 68 | 22 |
| Other Atlantic | 76 | 16 |
| Quebec | 77 | 14 |
| Ontario | 65 | 22 |
| Man./Sask. | 66 | 21 |
| Alberta/BC | 67 | 19 |
| | | |
| Rural | 67 | 20 |
| Urban | 70 | 19 |

Men (74%) are considerably more likely than women (64%) to advocate transporting nuclear waste away from population centers. Similarly, men in all three age cohorts are more likely than their female counterparts to prefer remote storage. Most notably, men aged 55 years and over (74%) choose this option to a far greater extent than women in the same age bracket (57%).

Respondents classified as weak opinion leaders (72%) are the most likely to support remote transportation.

Table 15

Trade Off: Transport to Remote Location or Keep Near
Population Centres, By Genderation and Opinion Leader Status

| · opanianon comico, by contactanon and opinion boards | | | |
|---|--------------------------------------|--------------------------------------|--|
| | Transport to Remote Location % | Keep Near Population Centres % | |
| Total | 69 | 19 | |
| Men | 74 | 18 | |
| Women | 64 | 20 | |
| | | | |
| Women 18 to 34 | 73 | 18 | |
| Men 18 to 34 | 79 | 17 | |
| Women 35 to 54 | 65 | 20 | |
| Men 35 to 54 | 71 | 22 | |
| Women 55+ | 57 | 22 | |
| Men 55+ | 74 | 15 | |
| | | | |
| Opinion Leaders | | | |
| Strong | 67 | 21 | |
| Average | 67 | 20 | |
| Weak | 72 | 17 | |

Quebecers (53%) and New Brunswickers (52%) are the most likely of all Canadians to support underground burial versus above ground storage. Meanwhile, outside of New Brunswick, nearly half (49%) of Atlantic Canadians opt for above ground storage where waste can be monitored more closely.

Table 16
Trade Off: Bury Underground or Above Ground, By Region

| | Bury Underground % | Above Ground Storage % |
|-------------------------|-----------------------|------------------------------|
| Total | 49 | 40 |
| Non-Nuclear Communities | 49 | 40 |
| Nuclear Communities | 48 | 44 |
| | | |
| New Brunswick | 52 | 38 |
| Other Atlantic | 44 | 49 |
| Quebec | 53 | 39 |
| Ontario | 49 | 40 |
| Man./Sask. | 47 | 42 |
| Alberta/BC | 49 | 40 |
| | | |
| Rural | 50 | 38 |
| Urban | 49 | 42 |

Men (57%) are significantly more likely than women (42%) to select underground storage as a trade off to easier monitoring. Conversely, young women aged 18 to 34 (64%) are the staunchest supporters of above ground storage of nuclear waste.

Table 17

Trade Off: Bury Underground or Above Ground,
By Genderation and Opinion Leader Status

| | Bury Underground % | Above Ground Storage |
|-----------------|-----------------------|----------------------|
| Total | 49 | 40 |
| Men | 57 | 35 |
| Women | 42 | 45 |
| | | |
| Women 18 to 34 | 29 | 64 |
| Men 18 to 34 | 47 | 48 |
| Women 35 to 54 | 44 | 43 |
| Men 35 to 54 | 53 | 37 |
| Women 55+ | 47 | 35 |
| Men 55+ | 69 | 23 |
| | | |
| Opinion Leaders | | |
| Strong | 46 | 43 |
| Average | 53 | 38 |
| Weak | 49 | 41 |

Quebecers (60%) and Atlantic Canadians outside of New Brunswick (57%) also differ in their opinions regarding centralized versus regional storage, with three-in-five advocating centralized storage (however, as previously discussed, these residents are not necessarily averse to transporting nuclear waste via truck or rail).

Table 18

Trade Off: Store Waste at a Centralized Site or Store at Sites
Across the Country, By Region

| | Store at Centralized Site % | Store at Sites Across the Country % |
|-------------------------|-----------------------------------|---|
| Total | 50 | 40 |
| Non-Nuclear Communities | 50 | 40 |
| Nuclear Communities | 53 | 40 |
| | | |
| New Brunswick | 53 | 39 |
| Other Atlantic | 57 | 34 |
| Quebec | 60 | 33 |
| Ontario | 47 | 43 |
| Man./Sask. | 45 | 44 |
| Alberta/BC | 47 | 43 |
| | | |
| Rural | 49 | 42 |
| Urban | 51 | 40 |

Men (55%) are somewhat more likely than women (46%) to prefer centralized storage, with 35 to 54 year old women divided in their opinions (44% selecting each option).

Table 19

Trade Off: Store Waste at a Centralized Site or Store at Sites
Across the Country, By Genderation and Opinion Leader Status

| | 3 , 3 | • |
|-----------------|-----------------------------------|---|
| | Store at Centralized Site % | Store at Sites Across the Country % |
| Total | 50 | 40 |
| Men | 55 | 38 |
| Women | 46 | 42 |
| | | |
| Women 18 to 34 | 50 | 43 |
| Men 18 to 34 | 53 | 43 |
| Women 35 to 54 | 44 | 44 |
| Men 35 to 54 | 53 | 39 |
| Women 55+ | 46 | 40 |
| Men 55+ | 59 | 33 |
| | | |
| Opinion Leaders | | |
| Strong | 47 | 42 |
| Average | 52 | 39 |
| Weak | 52 | 40 |

On a regional basis, Canadians are generally consistent in their belief that now is the time to focus on solutions to the issue of nuclear waste management, rather than focusing on research.

Table 20
Trade Off: Focus on Solutions Now or Focus on Research, By Region

| | | , , , |
|-------------------------|--------------------|-------------------|
| | Focus on Solutions | Focus on Research |
| Total | 65 | 31 |
| Non-Nuclear Communities | 65 | 31 |
| Nuclear Communities | 66 | 30 |
| | | |
| New Brunswick | 64 | 32 |
| Other Atlantic | 65 | 32 |
| Quebec | 67 | 31 |
| Ontario | 65 | 30 |
| Man./Sask. | 66 | 30 |
| Alberta/BC | 63 | 31 |
| | | |
| Rural | 66 | 30 |
| Urban | 65 | 31 |

Young men aged 18 to 34 (50%) are significantly less likely than other Canadians to advocate an immediate focus on solutions. Conversely, nearly half of men in this age group (48%) believe society should focus on research and allow future generations to decide how best to deal with the problem.

Table 21

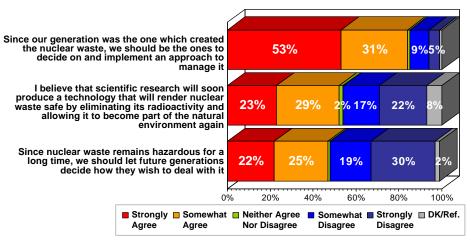
Trade Off: Focus on Solutions Now or Focus on Research,
By Genderation and Opinion Leader Status

| | <u>-</u> | |
|-----------------|-------------------------|------------------------|
| | Focus on Solutions % | Focus on Research % |
| Total | 65 | 31 |
| Men | 63 | 33 |
| Women | 67 | 29 |
| | | |
| Women 18 to 34 | 68 | 29 |
| Men 18 to 34 | 50 | 48 |
| Women 35 to 54 | 67 | 30 |
| Men 35 to 54 | 68 | 27 |
| Women 55+ | 66 | 28 |
| Men 55+ | 67 | 29 |
| | | |
| Opinion Leaders | | |
| Strong | 66 | 29 |
| Average | 66 | 30 |
| Weak | 64 | 33 |

H. Agreement with Various Statements About Nuclear Waste

To further define Canadians' current outlook on nuclear waste management, respondents were asked to reflect on a series of statements and indicate the extent to which they agree or disagree with each proposition.

Figure 13
Agreement with Various Statements About Nuclear Waste



Q: Would you say you agree or disagree with each of the following statements? (PROBE: Is that strongly or somewhat?) (ROTATE)

Most Canadians feel that now is the time to take control of the nuclear waste management situation. Specifically, 84% agree strongly (53%) or somewhat (31%) that since our generation is the one which created the nuclear waste, we should be the ones to decide on and implement an approach to manage it. Fourteen percent disagree.

Half (52%) of respondents believe that scientific research will soon produce a technology that will render nuclear waste safe by eliminating its radioactivity and allowing it to become part of the natural environment again (23% strongly, 29% somewhat). Conversely, two-in-five (39%) disagree that science will soon save future generations from this task (22% strongly, 17% somewhat).

Canadians are split on whether we should leave it to future generations to decide how they wish to deal with nuclear waste, with 49% *disagreeing* (30% strongly, 19% somewhat), and 47% agreeing (22% strongly, 25% somewhat).

On a demographic basis, respondents who are among the *least* likely to agree that our generation should be the ones to decide on and implement an approach to manage it include those who are neutral toward the NWMO's mandate (73%) and Western Canadians (78% of those in Alberta and BC). Other regional breaks are illustrated in the table below.

Table 22
Agreement with Various Statements About Nuclear Waste Management, By Region

| | Agree % | Disagree % |
|---|------------|---------------|
| Our generation should decide on an approach | | |
| Total | 84 | 14 |
| Non-Nuclear Communities | 84 | 14 |
| Nuclear Communities | 85 | 14 |
| | | |
| New Brunswick | 82 | 15 |
| Other Atlantic | 84 | 14 |
| Quebec | 88 | 10 |
| Ontario | 83 | 14 |
| Man./Sask. | 85 | 10 |
| Alberta/BC | 78 | 18 |

Meanwhile, Canadians who are most inclined to put their faith in scientific research to find a solution to nuclear waste include:

- Quebecers (61%);
- Respondents with a high school education or less (61%);
- Canadians who are not affiliated with the electricity generation or distribution sector (59%); and
- Residents of station communities (58%).

By comparison Western Canadians (43%) are among the least likely to agree with this suggestion. Other regional breaks are illustrated in the table below.

Table 23
Agreement with Various Statements About Nuclear Waste Management, By Region

| | Agree % | Disagree % |
|--|------------|---------------|
| Scientific research will produce a technology to render nuclear waste safe | | |
| Total | 52 | 39 |
| Non-Nuclear Communities | 52 | 39 |
| Nuclear Communities | 58 | 35 |
| | | |
| New Brunswick | 56 | 36 |
| Other Atlantic | 55 | 39 |
| Quebec | 61 | 33 |
| Ontario | 50 | 38 |
| Man./Sask. | 53 | 36 |
| Alberta/BC | 43 | 47 |

On a regional basis, Ontarians (44%) are somewhat less likely than their regional counterparts to agree that future generations should be left to decide how to deal with nuclear waste.

Table 24
Agreement with Various Statements About Nuclear Waste Management, By Region

| | Agree % | Disagree % |
|--|------------|---------------|
| We should let future generations decide how they wish to deal with [nuclear waste] | | |
| Total | 47 | 49 |
| Non-Nuclear Communities | 47 | 50 |
| Nuclear Communities | 49 | 48 |
| | | |
| New Brunswick | 50 | 46 |
| Other Atlantic | 51 | 48 |
| Quebec | 48 | 49 |
| Ontario | 44 | 53 |
| Man./Sask. | 51 | 44 |
| Alberta/BC | 49 | 47 |

The opinion that we should let future generations decide how they wish to deal with nuclear waste is also commonly held by young men aged 18 to 34 (64%). By comparison, agreement with this statement is least likely to be found among Canadians who were previously aware of the NWMO (39%).

I. Attitudes Toward Nuclear Power

i. Support for Nuclear Power

Strongly

Support

Somewhat

Support

Overall, Canadians are divided on whether to support the use of nuclear power for generating electricity, with half (49%) indicating support (including 34% who somewhat support and 15% who strongly support the issue), and slightly fewer who are opposed (43%, including one-quarter (24%) who are strongly opposed and 19% who are somewhat opposed). Overall, just under one-in-ten (8%) are unsure of their stance on the issue.

100% 80% 40% 15% 19% 24% 8%

Figure 14
Support for Nuclear Power

Q: On balance, would you say you strongly support, somewhat support, somewhat oppose or strongly oppose the use of nuclear power for generating electricity?

Somewhat

Oppose

Strongly

Oppose

Don't

Know

Support for nuclear power generation remains stable over the past year. In 2003, 50% of Canadians supported the notion of nuclear energy, while 42% were opposed.

Currently, residents of nuclear generation communities (62%) tend to report significantly higher levels of support than those from non-nuclear areas (49%). Similarly, on a regional basis, New Brunswick (63%) and Ontario (63%) residents report the greatest levels of support, while Prairie residents (15%) and Atlantic Canadians outside of New Brunswick (12%) are most inclined to be unsure of their stance on the issue.

Table 25
Support for Nuclear Power Generation, By Region

| | Support % | Oppose % | Don't Know % |
|-------------------------|--------------|-------------|-----------------|
| Total | 49 | 43 | 8 |
| Non-Nuclear Communities | 49 | 43 | 8 |
| Nuclear Communities | 62 | 33 | 5 |
| | | | |
| New Brunswick | 63 | 31 | 5 |
| Other Atlantic | 45 | 42 | 12 |
| Quebec | 32 | 62 | 5 |
| Ontario | 63 | 27 | 9 |
| Man./Sask. | 45 | 38 | 15 |
| Alberta/BC | 42 | 48 | 8 |

Men (56%) are more supportive than women (41%) of nuclear power generation, while women (12%) are more likely to be unsure. In particular, young women (14%) and women over the age of 54 (13%) are apt to have an undefined position. Meanwhile, at least half of men support the use of nuclear power for generating electricity, regardless of their age cohort.

Table 26
Support for Nuclear Power Generation, By Genderation

| | Support % | Oppose % | Don't Know % |
|-------------|--------------|-------------|-----------------|
| Total | 49 | 43 | 8 |
| Men | 56 | 38 | 5 |
| Women | 41 | 46 | 12 |
| | | | |
| Women 18-34 | 40 | 46 | 14 |
| Men 18-34 | 55 | 38 | 5 |
| Women 35-54 | 45 | 45 | 9 |
| Men 35-54 | 56 | 38 | 6 |
| Women 55+ | 38 | 48 | 13 |
| Men 55+ | 58 | 37 | 4 |

Levels of support for nuclear power generation are consistent across the various opinion leader subgroups.

ii. Perceived Importance of Nuclear Power

Among Canadians in provinces with nuclear power generating capabilities, similar proportions in Ontario (72%) and New Brunswick (68%) believe that nuclear power is an important source of provincial energy. By comparison, nearly three-quarters (72%) of Quebecers do not believe nuclear power is an important source of electricity. Nearly two-thirds (72%) of French respondents, report that nuclear power is not an important source.

Table 27

Nuclear Power an Important Source of Electricity? By Region

| | Yes % | No % | Don't Know % |
|-------------------------|----------|---------|-----------------|
| Total | 35 | 51 | 14 |
| Non-Nuclear Communities | 34 | 51 | 14 |
| Nuclear Communities | 71 | 22 | 7 |
| | | | |
| New Brunswick | 68 | 19 | 12 |
| Other Atlantic | 13 | 75 | 11 |
| Quebec | 13 | 72 | 15 |
| Ontario | 72 | 16 | 12 |
| Man./Sask. | 7 | 73 | 19 |
| Alberta/BC | 7 | 77 | 16 |

Half (50%) of Canadians who support the use of nuclear power for generating electricity feel that it is an important source in their province. Conversely, two-in-ten (20%) of those in opposition to nuclear power generation share this view.

Strong opinion leaders (38%) are somewhat more likely than weak opinion leaders (33%) to believe that nuclear power is an important source of electricity.

J. Personal Level of Interest and Involvement

i. Personal Level of Interest

More than three-quarters (78%, up 9% from 2003) of Canadians report that they are very (22%, up 2%) or somewhat (56%, up 7%) interested in learning more about the management of used nuclear fuel, while 22% (down 9%) are either not very (15%, down 5%) or not at all interested (7%, down 3%).

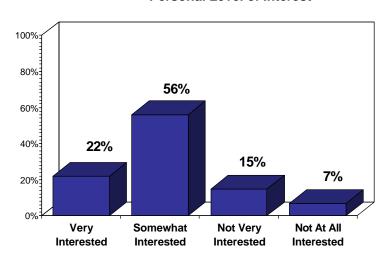


Figure 15
Personal Level of Interest

Q: Different people have different levels of interest in learning more about the management of used nuclear fuel. How about you? Would you say you are very interested in learning more about the management of used nuclear fuel, somewhat interested, not very interested, or not at all interested?

Interest in learning more about the management of used nuclear fuel is most commonly found among:

- Canadians who were previously aware of NWMO (90%);
- Respondents who are already familiar with nuclear waste and its management (88%);
- Strong opinion leaders (88%); and
- College and university educated Canadians (80%).

By comparison, a lack of interest is noted among Canadians with a neutral perception of NWMO's mandate (33% report being not very or not at all interested) and weak opinion leaders (31%).

ii. Desired Level of Personal Involvement

Despite this expression of interest however, nearly half (48%, up 6%) of respondents indicate that they would *not* like to be personally involved in the discussion of a plan for the management of used nuclear fuel as part of NWMO's study. In particular, 25% (up 5%) report that they would like to be *not very involved*, while an additional 23% (up 1%) prefer to be *not at all involved*. On the contrary, 3% (down 3%) would like to be *extremely involved* and 12% (up 1%) are prepared to be *very involved*. One-third (36%, down 4%) of Canadians would like to be *somewhat involved*.

100% 80% 60% 36% 40% 25% 23% 12% 20% 3% Extremely Very Somewhat **Not Very** Not Involved Involved Involved Involved Involved At All

Figure 16
Desired Level of Personal Involvement

Q: How much would you personally like to be involved in the discussion of a plan for the management of used nuclear fuel as part of NWMO's study? Would you like to be extremely involved, very involved, somewhat involved, not very involved or not involved at all? Canadians who are most apt to report some desired degree of involvement (either extremely, very or somewhat involved) include:

- Those who are familiar with nuclear waste and its management (67%);
- Canadians who were previously aware of NWMO (66%); and
- 45 to 54 year olds (60%).

Men (56%) are considerably more likely than women (45%) to desire some level of involvement, while older Canadians (42% among those 55 years of age and over) and Canadians who are opposed to the mandate of the NWMO (45%) are among the least likely to want to play a role in the discussion of a nuclear waste management plan.

K. Concluding Remarks

At the conclusion of the telephone interview, all respondents were asked if they had any remaining comments or questions about the issue of nuclear waste management that they felt should be addressed. A synopsis of comments appears in the following table.

Table 28
Concluding Remarks: Total Sample
(Multiple Mentions Accepted)

| · · | Total | Nuclear Community Residents |
|--|-------|--------------------------------|
| Comment | % | % |
| Nothing / no comments / everything covered | 45 | 54 |
| Keep the public informed | 8 | 5 |
| Explore alternative energy sources | 7 | 5 |
| Continue research and find solutions | 3 | 3 |
| Dangers of nuclear energy | 3 | 3 |
| Think in the long-term / future generations | 3 | 1 |
| Consult experts / other countries | 2 | 2 |
| Would like information on Organization / how to get involved | 2 | 2 |
| Distrust of government / role | 1 | 2 |
| Use money wisely | 1 | 1 |
| Location of waste disposal / not in my backyard | 1 | 1 |
| Concerns about storage options | 1 | 1 |
| Concerns about environmental effects | 1 | 2 |
| Pro-nuclear | 1 | 1 |
| Should transform or neutralize nuclear waste | 1 | 1 |
| Should be responsible, realistic, careful | 1 | 1 |
| Moving in the right direction | 1 | 2 |
| Concerns about transportation of waste | 1 | - |
| All other responses | 2 | - |
| Don't know | 21 | 16 |