

Site Selection Process Document Testing

NWMO SR-2009-13

April 2009

Navigator

nwmo

NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES



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Nuclear Waste Management Organization

The Nuclear Waste Management Organization (NWMO) was established in 2002 by Ontario Power Generation Inc., Hydro-Québec and New Brunswick Power Corporation in accordance with the *Nuclear Fuel Waste Act (NFWA)* to assume responsibility for the long-term management of Canada's used nuclear fuel.

NWMO's first mandate was to study options for the long-term management of used nuclear fuel. On June 14, 2007, the Government of Canada selected the NWMO's recommendation for Adaptive Phased Management (APM). The NWMO now has the mandate to implement the Government's decision.

Technically, Adaptive Phased Management (APM) has as its end-point the isolation and containment of used nuclear fuel in a deep repository constructed in a suitable rock formation. Collaboration, continuous learning and adaptability will underpin our implementation of the plan which will unfold over many decades, subject to extensive oversight and regulatory approvals.

NWMO Dialogue Reports

The work of the NWMO is premised on the understanding that citizens have the right to know about and participate in discussions and decisions that affect their quality of life, including the long-term management of used nuclear fuel. Citizens bring special insight and expertise which result in better decisions. Decisions about safety and risk are properly societal decisions and for this reason the priorities and concerns of a broad diversity of citizens, particularly those most affected, need to be taken into account throughout the process. A critical component of APM is the inclusive and collaborative process of dialogue and decision-making through the phases of implementation.

In order to ensure that the implementation of APM reflects the values, concerns and expectations of citizens at each step along the way, the NWMO plans to initiate a broad range of activities. For each of these activities, reports are prepared by those who designed and conducted the work. This document is one such report. The nature and conduct of our activities is expected to change over time, as best practices evolve and the needs and preferences of citizens with respect to dialogue on nuclear waste management questions is better understood.

Disclaimer:

This report does not necessarily reflect the views or position of the Nuclear Waste Management

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SITE SELECTION PROCESS DOCUMENT TESTING

NUCLEAR WASTE MANAGEMENT ORGANIZATION

APRIL 2009

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INTRODUCTION

During the period of March 21-25, 2009, Navigator spoke to Canadians in three cities to solicit feedback on a working draft of both the Executive Summary and one chapter of a larger NWMO document outlining the organization's site selection process. Once finalized, the document will be distributed to the general public as part of the NWMO's public consultation process. Navigator used a red and green pen exercise to gauge understanding of the document, inquire as to whether the document met participant expectations on depth and content, identify any barriers to comprehension, and identify formats and media appropriate for the material. Furthermore, the groups allowed audiences in Saskatoon, Greater Toronto and Scarborough to pose any questions exposure to the document might have raised.

METHODOLOGY

Focus groups took place in March 2009 in the following representative communities in Ontario and Saskatchewan:

Scarborough, Ontario:	Saturday, March 21, 2009
Saskatoon, Saskatchewan:	Monday, March 23, 2009
Greater Toronto Area, Ontario:	Wednesday, March 25, 2009

Focus group participants in all three cities were selected using random digit dialing. Two groups were conducted in each city, one for each gender. Genders were divided because Navigator has found that in situations such as this, same-gender groups allow for nuanced differences in perspective between the genders to become apparent.

Individuals called underwent a standard research screening survey in which they indicated that they were interested and able to participate in a discussion about a general public policy issue with no advance notice of the specific topic.

Individuals were screened to include community-engaged opinion leaders, individuals who are early to inform themselves of emerging public affairs issues and likely to lead or contribute to discussions. This was determined by asking individuals whether or not they had expressed concern on a local or community issue, either individually or with others, in the last two years, including the following: written a letter to the editor, researched a topic on the Internet, contacted an elected representative or political candidate, attended a public meeting, signed a petition, displayed a lawn sign or sticker supporting or opposing an issue or displayed a bumper sticker supporting or opposing an issue. Those that answered "yes" to at least one of the above were eligible to participate.

In addition, potential participants were required to watch a TV newscast or read the front section of the newspaper at least 2-3 times per week, name two or more current issues reported in the media and provide 3 uses for a toothbrush other than brushing your teeth to demonstrate an ability to think outside the box.

Individuals who work directly for the nuclear or energy industry were screened out so that there was a similar knowledge level in the room, allowing for discussion and learning. As well, quotas were placed on age to ensure a good mixture in all groups, as well as on the number of retirees, unemployed and students in each group.

Groups in all locations were well attended, with appropriately recruited participants. The Moderator's Guide was executed in each two hour focus group without any significant issues.

Focus groups began with a brief introduction to the NWMO and its mandate, as well as the current status of nuclear waste in Canada. Given the complexity of the subject matter introduced to participants, the Moderator kept discussions to a minimum and immediately distributed a copy of the Executive Summary of *A Responsible Path Forward for the Long-Term Management of Canada's Used Nuclear Fuel: Proposed Site Selection Process for Public Dialogue* to provide participants with more information. Participants were asked to review the document individually and, as they were reading, mark the document with red and green pens, green indicating they felt a certain point was appropriate or helpful to their understanding and red indicating that they did not find the point appropriate or helpful.

Once participants finished reading through and marking up the document, a group discussion led by the Moderator was held.

Participants were then given Chapter Three of the larger version of the document, *A Responsible Path Forward for the Long-Term Management of Canada's Used Nuclear Fuel: Proposed Site Selection Process for Public Dialogue* entitled *A Fair Process*. Participants were instructed to, again, read the document individually and use the red and green pens provided to indicate whether statements were or were not appropriate, or were or were not helpful to their understanding. Once participants finished reading through and marking up the document, a group discussion facilitated by the Moderator was held.

Before wrapping up, the discussion turned to expectations. Participants were asked how both documents measured up to their expectations, both in terms of content and design. Participants were then offered a chance to voice any remaining issues or raise any questions they might have before the discussion came to an end.

GENERAL FINDINGS

Both the Executive Summary and Chapter Three of *A Responsible Path Forward for the Long-Term Management of Canada's Used Nuclear Fuel: Proposed Site Selection Process for Public Dialogue* were well-received by participants in all six focus groups. Participants generally felt both documents were well-written, clear and concise and demonstrated the NWMO's commitment to transparency, inclusiveness and safety. Many praised the NWMO for producing a document that the "layperson" could understand. Language was accessible and overly technical terms were kept to a minimum.

The following are general observations made when reviewing both documents in all six focus groups.

REVIEW OF THE EXECUTIVE SUMMARY DOCUMENT

The Executive Summary document was generally well-received by participants. Most appreciated the document for being “straight-forward” and “easy to understand” and thought it was, for the most part, laid out in a pleasing manner. In the words of one participant,

For subject matter as important as this, I thought it was pretty good. I could understand it. Someone has to figure out what to do with it. They presented a plan, and that's that. It makes it very clear what the idea is.

– Male, Toronto

Although the content of the Executive Summary was well-received by participants, the title of the document did raise a few concerns. “Executive Summary” was flagged by some participants of conjuring up business and private sector connotations. “Summary Overview” or a less corporate phrase might serve the NWMO better as it begins to distribute the document publicly.

For most participants, this was the first they had heard of the NWMO and its mandate and, for some, the first they had heard about the challenge of long-term storage of used nuclear fuel. As a result, some struggled with various terms and concepts,

I know what a CANDU reactor is but others might not. Maybe have a list of terms [to reference] in the document.

- Male, Saskatoon

Some participants felt that a glossary would be a welcome addition to the document as it would give participants some subject area knowledge and provide help in navigating the materials.

The current tri-fold design of the Executive Summary proved to be a bit of a challenge for participants. Without direction from the Moderator, nearly all participants had differing ideas of how they were supposed to read the document. Some thought it should be completely unfolded, and that they were to read all three panels of the “inside” of the document before flipping it over and reading the “back.” Most participants, however, took a linear approach, reading across the first two pages seen when the cover was opened. Page numbering might assist in this, though allowing text to spill across pages in a less “modular” fashion, or including subtle visual indicators of flow might also work as indicators of how to properly read the document.

There was some concern among participants about typography, namely why so few instances of bold or italic text were used to indicate words or phrases of importance. As well, some felt the following headline, visible once the tri-fold document is opened, was too weak to draw attention and should be increased in size and prominence,

Help design the process to select a site for an important new national infrastructure initiative.

What did draw a great deal of attention for its size and prominence was the diagram of the fuel rod bundle. In the words of one participant,

They say a picture is worth a thousand words for a reason.

– Male, Scarborough

Many participants misunderstood the diagram. There are a number of reasons for this, first among them that participants did not instantly recognize what it was. Although the caption next to the image makes the object's identity very clear, it is possible that participants did not realize that the adjacent seven lines of non-italicized text were actually the caption for that image. Simple stylistic changes might solve this.

A second concern with the diagram was its lack of scale. In the words of one participant,

It's quite large compared to everything around it.

– Male, Toronto

Another participant stated the following,

The diagram looks threatening, almost like the barrel of a gun.

– Male, Toronto

Depicted without any size comparator (e.g. a human being, an automobile, etc.) in the document, readers were left guessing as to its dimensions. Participants have consistently understood and appreciated the hockey rink analogy as it has enabled them to understand the scope of used nuclear fuel storage on a macro level. The fuel bundle needs a similar comparison.

Another diagram that received a lot of attention, both positive and negative, was the cross-section of the deep geological repository on page 2 of the Executive Summary. Some felt it was useful and clearly illustrated the surrounding text, whereas others worried about the farm-like appearance of the surface land and surrounding area.

The surface level looks like farmland, which is possibly misleading. If it is the Canadian Shield that they are thinking of, maybe [a graphic that depicts] more rock and forest than a working farm.

– Male, Toronto

Although many understood and accepted the notion of “willing host,” the farm-like land and what appear to be working farms in the background of this diagram worried some participants, as it felt a little “too close to home.”

Participants in several groups seemed puzzled after reviewing text on the notion of retrievability. The text raised concerns from two perspectives. First, this text is the first mention of the notion of retrievability for most readers, and its casual placement, with no further explanation, was a surprise to some. A second issue with retrievability as it is explained in the Executive Summary is the reference to the fuel being retrievable for “an extended period” of time. A casual reader might wonder why the used fuel, if indeed

retrievable, may only be retrieved for a finite period of time. With no explanation given, the reader might also wonder what “an extended period” means, especially in a multigenerational project.

Participants do not like terms or ideas they feel are too vague and need more description. For instance, the concept of third party review on page 4 is too vague for participants. It could be remedied not by being prescriptive, but rather by giving examples of the kind of third party involvement the organization is thinking of. At present, it is too vague and participants cannot visualize what it would or could look like. As well, participants struggled when length of time would be described only as “very long-term” or “very long period of time.” Even though, in many cases, it’s difficult to determine exact timelines, descriptions that are less opened ended would be preferred.

CHAPTER REVIEW

Similar to the Executive Summary document, Chapter Three of the larger document was very well-received by participants. Many comments made by participants in reference to the Executive Summary applied to this document as well, yet there were some aspects of this document that participants far preferred. It was, in the words of one participant,

...a lot more consistent and clear. The [Executive Summary] had a lot of jargon.

– Female, Toronto

Another participant agreed, stating the following,

It seems they wanted to establish some background [with this document]...in doing so, they make it more clear.

– Female, Toronto

Participants liked that the NWMO had clearly spoken to Canadians and that a great deal of research and consultation had gone into the development of APM. According to one participant,

You feel like they've done their due diligence. They talk a lot about a collaborative process. They've talked to a lot of people and they have a lot of evidence backing it. You feel more comfortable that a lot has gone into this.

– Female, Saskatoon

Some participants were happy to see that, in developing APM, the NWMO had drawn experiences and lessons learned from past work and processes developed in Canada. This sentiment was perfectly articulated by a participant in Saskatoon,

Developed in Canada, I like that. Canada, to me, has stricter laws and regulations than Americans might.

– Female, Saskatoon

Participants were, however, interested to hear if similar processes had occurred or were occurring in other countries. One participant asked,

Has anyone every done this before? That would be effective, to mention that it's being done in other countries.

– Male, Saskatoon

The notion that communities in Sweden, for example, were willing hosts was of great interest to a number of participants who, themselves, struggled to understand why a community would ever be a willing host.

The goals of the partnership-based approach to site selection on page 15 were very well-received by participants, who especially liked the emphasis on involving surrounding communities. Many were impressed with the NWMO's commitment to ongoing dialogue with the community, but there was some misunderstanding about where money provided from the NWMO to increase awareness would go. Some interpreted this as the NWMO funding awareness campaigns for interested communities and, as a result, expressed their reservations with that process, fearing that some degree of "selling" the repository might occur. According to one participant,

You have to be careful that you don't talk down to people. You need to make them feel comfortable. There has to be time after they hear both the pros and the cons. You need to give them time to think about it and make an informed decision.

– Female, Saskatoon

These reservations did not always hold up when pressed by the Moderator, but they were widely noticed. Greater clarification that the NWMO would, in fact, give the money to the communities to hire third parties from which to seek advice and conduct community-based activities would be helpful.

On page 19, a number of participants did not like the fourth sentence of the first paragraph beginning in "and." As well, the last sentence states that there are "seven key steps" when, in fact, there are eight.

Most participants were quite pleased with the NWMO's "Guiding Principles," especially a community's "right to withdrawal." There was a great deal of concern among some participants as to what exactly constitutes "willing" and the notion that a community has a right to cease involvement at any point before the process is legally binding gave many a great deal of comfort. As did the mention that the local community must demonstrate it is willing to accept the project. Many were pleased to hear that "community" extended far beyond City Council and elected officials, and that the community as a whole had a say in the process. However, participants generally struggled with the term "community." So, despite the fact that the NWMO has committed to involved the community in its entirety, some are still unclear as to what exactly that will look like and how exactly it will play out. In the words of one participant,

They are leaving it up to communities to say if they want it or not, and they aren't putting anything measurable around that. What is the level of support they will accept?

– Male, Saskatoon

This is the first time we have seen a bit of an increase in confidence in government institutions. Although some participants questioned whether, on page 17, the provincial government should be considered an "interested community" in consultation with potentially affected Aboriginal peoples should they chose to use Crown Land as a site for the repository, government institutions were viewed positively.

The emphasis on safety throughout this chapter was very well-received by participants. Although regulatory oversight was appreciated, a number of participants wanted to know who the regulatory authorities would be and what this oversight would look like. Some

further context around Environmental Assessment (EA) and the regulatory process is required. Participants do not understand how comprehensive an EA is. Most think it is narrow and therefore wonder about other approvals, etc. Defining what it involves would be helpful.

There are inconsistencies in spacing between each bullet point on pages 16 and 17 and an extra period in the first sentence of the “Community Well-Being” bullet. On page 19, Step 2 has two typos (“NWMO will I evaluate” and “...and his evaluation...”). Aboriginal is spelled incorrectly in Step 4, and Step 8 has two number 8s.

RECOMMENDATIONS

THERE IS AN OPPORTUNITY FOR THE NWMO TO BUILD AWARENESS

A lack of knowledge of what the NWMO is and the scope of its work continues to be an initial impediment, particularly on the shorter Executive Summary. In our experience, the absence of this information raises skepticism and concern amongst participants seeing the material for the first time. In the words of one participant,

*There needs to be more awareness of the organization.
People will feel more comfortable knowing who they are.*

– Female, Saskatoon

Canadians trust what they know. It is important the NWMO think about how to build its profile throughout the site selection process. Building awareness for the actual process is vital, but evidence suggests the NWMO must be sure to build awareness for the organization as a whole as well.

THERE IS MORE THAN ONE DEFINITION OF “COMMUNITY”

The word “community” continues to be a problem for readers exposed to the NWMO’s literature. Many participants found the word to be vague, at best, and, at worst, misleading.

One participant in Toronto felt that “community” was used by the NWMO as a euphemism for aboriginal communities. Others said that it simply implied a region with some form of functioning local government, either formal or informal.

Beyond the physical description of “community,” participants also wondered what exactly constitutes a community when faced with the decision to be a willing host to a repository. All residents? Just a City Council and elected officials? Anyone who directly or indirectly represents an area?

According to one participant,

*When I hear “community,” it implies to me that there is
some local government, formal or informal.*

– Male, Toronto

Without a clear definition of “community,” participants struggled with how to establish whether or not a community is genuinely willing. In the words of one participant,

*What constitutes “community” Politicians or all people? And
if one person says no, what happens?*

– Female, Toronto

The word “community” is difficult and seen by some as euphemistic or implying something more specific than intended. It would be worth defining what the organization means by community at the outset, again on the boilerplate page or glossary pages.

To communicate what they want to get across better, they have to come up with a better word for communities. It is hard to identify the people making the decision.

– Female, Scarborough

EXPECTATIONS OF READERS MUST BE DEFINED

Participants were unclear as to what was being expected of them as readers of this document. There were some questions, such as what the process they were reading about was exactly – was the process a judgment on the merits of Adaptive Phased Management or to site the ultimate repository? Simply put, some participants struggled with what exactly they were being asked to decide – contributing to the design of a process or the launch of a process. It seemed that it was the word “process” that caused some confusion among participants.

This confusion also led some participants to grapple with the proper audience for this material. When told this would not be something people would “find in their mailboxes,” they warmed more to the language and content, believing that those who sought out the information or for whom it was relevant would appreciate its depth and complexity.

In the words of one participant,

This is not targeted toward me, my wife, my neighbour. This is not targeted at us. It's targeting those who are interested in the siting process.

– Male, Toronto

Perhaps, in future documentation, the NWMO might alleviate confusion by clarifying what exactly the call to action is for readers of the document. This might be achieved with a slight expansion of the headline so readers are aware of what is expected to them.

CERTAIN TERMS REMAIN A CHALLENGE FOR PARTICIPANTS

As has been seen in previous research, participants consistently struggled with certain terms no matter how aware or educated they are on the subject matter. Transportation is one of them. Many underlined transportation in red pen, stating that it worried them. Radioactivity and risks are two other terms that participants consistently struggle with. Many participants underlined the following sentence on page 3 in red pen,

Although the radioactivity decreases with time, the used fuel will remain a potential health risk for thousands of years.

These participants wanted to know what the potential health risks were, and did not respond well to the term “radioactivity.”

Participants also struggled with the financial aspects of APM, largely due to the long-term nature of the process. Some wondered where the money would come from, others wondered if the NWMO had taken into account potential increases in cost in decades to come.

In the words of one participant,

Costs are going to be far higher than expected, especially since it's happening over such a longer period of time.

– Female, Toronto

Overall, it seems that NWMO documentation is heading in the right direction. Participants found this document informative, accessible and, generally easy to understand. They were pleased that an organization existed that had a well thought out plan, had clearly outlined how they were going to execute that plan, and were committed to collaboration throughout the duration of their plan. Although there are still issues to be considered in future communications, the reaction from first time readers was fairly positive, largely a result of the nature of NWMO documentation presented to them.

APPENDICES

1. Navigator Personnel
2. Moderator's Guide
3. Heat Chart: Executive Summary
4. Heat Chart: Chapter Review

I. NAVIGATOR PERSONNEL

JAMES STEWART WATT, SENIOR DISCUSSION LEADER

Jaime Watt is Chair of Navigator, a Toronto-based consulting firm that specializes in the measurement, evaluation and movement of public opinion, corporate and communications strategy and public policy development.

Prior to relocating to Toronto, he was, for ten years, Chair of Thomas Watt Advertising, a leading regional advertising agency and communications consulting firm based in London, Ontario.

A specialist in complex communications issues, Jaime has served clients in the corporate, professional services, not-for-profit and government sectors and has worked in every province in Canada, the United States, the United Kingdom, France, Central America, Korea, Kosovo and Jordan. As well, he is recognized by his peers as Canada's leading qualitative public affairs researcher.

He is past-Chair of Casey House, Canada's pioneer AIDS hospice, as well as Casey House Foundation and is a Vice President of the Albany Club. He is a director of the Dominion Institute, Woodrow Wilson Center's Canada Institute, TD Canada Trust's Private Giving Foundation, Booth Linen Services, The Canadian Club of Toronto, The Clean Water Foundation, Egale Canada and is a Toronto Heritage Companion. He was a founding Trustee and Co-chair of the Canadian Human Rights Trust and the Canadian Human Rights Campaign and a member of the Executive Committee of Canadians for Equal Marriage.

CHAD A. ROGERS, SUPPORTING DISCUSSION LEADER

Chad joined Navigator in 2007, bringing more than a decade's worth of experience providing research, strategic planning, and communications advice to government, corporate and not-for-profit clients.

Before joining Navigator, Chad worked with the National Democratic Institute for International Affairs (NDI), a nonprofit organization based in Washington, D.C. As NDI's Country Director in Kosovo and Armenia between 2003 and 2007, Chad was responsible for directing democracy and governance assistance programs for political parties, parliaments and civil society organizations.

Chad is a current board member of the Kosova Democratic Institute and Save the Children Canada. He is also a member of the Qualitative Research Consultants Association (QRCA), Public Affairs Association of Canada (PAAC) and the Market Research & Intelligence Association (MRIA) where he sits as a member of the board of the Qualitative Research Division (QRD). He is a RIVA (the Research Institute for Values and Attitudes, Rockville, Maryland) certified moderator.

COURTNEY GLEN

Courtney Glen is a Consultant at Navigator assisting in public opinion research, strategic planning and public policy advice for government, corporate and not-for-profit clients.

Courtney most recently worked at the Fraser Institute as a junior policy analyst in health and pharmaceutical policy. In her time at the Institute, Courtney co-authored a major pharmaceutical policy paper and contributed to their monthly policy journal, *The Fraser Forum*.

Prior to that, Courtney worked as a researcher for the Scottish Labour Party in Edinburgh, Scotland, conducting an audit of the Parliament's Cross Party Group on International Development.

Courtney has a Masters in International and European Politics from the University of Edinburgh in Scotland and a Bachelor of Arts Honours degree in Political Science from the University of Guelph.

LANNY A. CARDOW, PROJECT MANAGER

Lanny Cardow is a Consultant performing research-based strategic communications work on projects for Navigator's corporate and not-for-profit clients.

Lanny most recently served in the Office of the Prime Minister as the Executive Assistant to the PM's Chief of Staff, having previously worked in the Office of the Leader of the Opposition in various capacities, including Manager of Outreach (Operations).

Lanny graduated with a master's degree from The George Washington University's Graduate School of Political Management in 2006, specializing in both Campaign Management and Polling course concentrations.

While completing his degree, Lanny performed research at GWU's Institute for Politics, Democracy and the Internet, contributing to numerous studies and events that explored the crossroads of online technology and advanced campaigning techniques.

Lanny earned his bachelor's degree in Political Studies at Queen's University in 2002.

II. MODERATOR'S GUIDE

NUCLEAR WASTE MANAGEMENT ORGANIZATION

1. OPENING OF FOCUS GROUP SESSION (0:00 – 0:05)

- Thank for attending
- Reminder: Confidentiality of session
- Overview of focus groups activities and timing

2. INTRODUCTIONS (0:05 – 0:10)

3. BRIEF INTRODUCTION TO THE NWMO (0:10 – 0:15)

- Tonight we are going to discuss a topic many of us do not necessarily encounter in our everyday lives, and that is spent nuclear fuel or nuclear waste.
- Here's how they describe themselves on some of their materials:

"Canada's nuclear electricity generators established the Nuclear Waste Management Organization (NWMO) in 2002, as required by the Nuclear Fuel Waste Act. The organization's first mandate was to develop an approach for the long-term care of used nuclear fuel.

Over three years the NWMO engaged thousands of Canadians in every province and territory, to chart a path forward. The approach which emerged from these discussions, and was recommended to the government in 2005, is called Adaptive Phased Management. It was selected by the Government of Canada in 2007.

The NWMO is now responsible for implementing Adaptive Phased Management."

- Canada has generated nuclear power for more than 40 years and there is now an inventory of waste currently (safely) stored near the generating plants themselves. The waste would fill 6 hockey rinks, from the ice to the boards.
- The NWMO has been tasked by Canada's government through an act of parliament to find a process, a site, and ultimately build a repository for this waste.

4. EXECUTIVE SUMMARY (0:15 – 1:00)

I am going to hand around a document published by the NWMO. The document is an executive summary of a larger publication they plan to distribute publicly in the months ahead.

- I am going to ask all of you to take 10-12 minutes and read this document through once completely, from start to finish.

- After you have completely reviewed the document once, please take the red and green pens we have provided you at your station and use them to write, mark or annotate the document.
 - Mark those things that you did not understand or for some reason found inappropriate for the document in red.
 - Mark those things that you found easy to understand or found appropriate for a document like this in green.
- Discussion

5. CHAPTER REVIEW (1:00 – 1:45)

I am now going to distribute the larger version of the document. Once you have the document, let's flip to the chapter entitled "A Fair Siting Process" on page 15.

- I am going to ask all of you to take 10-12 minutes and read this document through once, completely, from start to finish.
- Please take the red and green pens we have provided you at your station and use them to write, mark or annotate the document.
- You can underline, circle, make a note, draw an arrow, or however you would like to highlight a word, phrase, sentence, paragraph or section.
- Discussion

6. EXPECTATIONS (1:45 – 1:55)

- Reflecting back on all we have read and discussed in the previous hour and a half or more, how does this document measure up to your expectations?

7. WRAP-UP (1:55 – 2:00)

- As we end our session does anyone have any remaining issues to discuss or questions to raise?
- I would like to thank you for coming out today and contributing so much to our research.

III. HEAT CHART: EXECUTIVE SUMMARY

DRAFT

**A Responsible Path Forward
for the Long-term Management
of Canada's Used Nuclear Fuel**

**Proposed Site Selection Process
For Public Dialogue**

MONTH YEAR

**Executive
Summary**

nwmo
NUCLEAR WASTE
MANAGEMENT
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DES DÉCHETS
NUCLÉAIRES

Long time — why only being dealt with now?

Participants like that they can visualize.

Too large. Would rather it be to scale. Participants felt it looked like the barrel of a gun.

A CANDU fuel bundle is approximately 0.5 metres long and weighs about 24 kilograms. Over the past 40 years Canada's nuclear electricity generators have produced just over 2-million used fuel bundles. If they could be stacked like cordwood, all of Canada's used nuclear fuel bundles could fit into six hockey rinks, from the ice surface, to the top of the boards.

Diagram clearly illustrates text.

Looks like farmland — concerning.

Wondering where so much money will come from.

The deep geological repository will be a multi-billion dollar national infrastructure project hosted by an informed and willing community. It will require a land mass approximately two by three kilometres in area. The underground facility will be constructed at a depth of 500 metres or more, depending on the geology of the actual site.

Bigger font.

LEGEND

1. Surface Facilities	5. Container and Buffer
2. Main Shaft Complex	6. Container
3. Placement Rooms	7. Used Nuclear Fuel
4. Backfill	



Would like this bigger and bolder.

Help design the process to select a site for an important new national infrastructure initiative

How long?

What are the risks?

FOR DECADES CANADIANS HAVE BEEN USING ELECTRICITY generated by nuclear power reactors in Ontario, Quebec and New Brunswick. We have produced just over 2 million used fuel bundles, a number which will double if our 22 existing reactors operate to the end of their planned life. When used nuclear fuel is removed from a reactor, it is radioactive and requires careful management. Although the radioactivity decreases with time, the used fuel will remain a potential health risk for thousands of years.

The Government of Canada approved a plan for the long-term management of the used fuel produced by Canada's nuclear electricity generation. Called *Adaptive Phased Management*, the plan will enable our generation to proceed in a deliberate and collaborative way to establish the foundation for the safe and secure stewardship of Canada's used nuclear fuel for the long term.

"Backtracking"

Today, used nuclear fuel is safely stored at licensed interim-storage facilities at nuclear reactor sites in Canada. As we plan for the future, *Adaptive Phased Management* charts a course for the safe, secure long-term management of used nuclear fuel, in line with best international practice and the expectations of Canadians.

Unclear in this context.

Why only in 2002?

The Nuclear Waste Management Organization (NWMO) was created in 2002 as a requirement of the Nuclear Fuel Waste Act. The Act required the NWMO to study, recommend and then implement a plan for the long-term management of used nuclear fuel in Canada. The NWMO engaged thousands of citizens, specialists and Aboriginal people in every province and territory to develop a long-term management approach that is socially acceptable, technically sound, environmentally responsible and economically feasible. *Adaptive Phased Management* requires that nuclear fuel waste be isolated and contained in a deep underground repository. A fundamental tenet of this plan is the incorporation of learning and knowledge at each step, to guide a process of phased decision-making. The plan builds in flexibility to adjust the plan if needed.

Worry about need to adjust plan.

Sentence is unclear.

The NWMO is now implementing *Adaptive Phased Management*. Our current task is to collaboratively design the process which will be used to identify an informed and willing community to host Canada's permanent storage facilities for used nuclear fuel.

The NWMO has developed a *Proposed Site Selection Process for Public Dialogue*. www.nwmo.ca.

We invite and welcome your comments on our proposal. We look forward to working with you to confirm a fair, ethical and effective course of action for selecting a site for this important new national infrastructure initiative.



What is the process?

Happy the NWMO Spoke to Canadians.

Building on the direction from Canadians

BUILDING ON NWMO'S ONGOING PROGRAM OF DIALOGUE IN 2008 the NWMO initiated a dialogue with interested organizations and individuals on important principles and elements for a fair process to ensure selection of a safe, secure site in an informed and willing host community. Our Proposed Site Selection Process is responsive to the direction provided by Canadians who participated in these dialogues.

Canadians told us they want to be sure, above all, that the selected site is safe and secure for people and the environment, now and in the future. The process for choosing the site must be grounded in values and objectives that they hold important. And, it must be open, transparent, fair and inclusive. The people we engaged said the process must be designed in a way that citizens can be confident that the highest scientific, professional and ethical standards will be met. This national infrastructure project is designed to be implemented through a long-term partnership involving an informed and willing community and the NWMO.

What is the project to be sited?

A lot of money.

THIS \$16 TO \$24 BILLION national infrastructure project will involve the development of a deep underground repository for the long-term management of used nuclear fuel and the creation of a center of expertise and research. The used fuel will be safely contained and isolated by both engineered barriers and the surrounding geology in the repository. This deep underground repository is similar to those being developed in other countries for the permanent storage of both used nuclear fuel and recycled nuclear fuel waste. **The waste in the repository is designed to be retrievable for an extended period.** Consistent with international best practice, and the expectations of Canadians, the facility will be built to ensure the safety of people, communities and the environment.

The repository and research centre are high technology projects that will provide significant economic benefits including skilled employment for hundreds of people over many decades, in both the host community and the surrounding region. It will involve scientists, engineers, trades people and many others.

This project is multi-generational and will be developed in phases. The deep underground repository will be sited and constructed over two or three decades and then operated for three decades or more after that.

The research centre will support the project and serve as a hub for sharing research across Canada and with other countries such as Sweden, Finland, France and Switzerland, which are following a similar path. It will be established at the inception of the project and will operate for the full duration through construction and operation.

Very long time — Costs will be higher than projected.

Who?

What is the proposed site selection process?

Vague — how long?

THE PROPOSED SITE SELECTION PROCESS is designed to help ensure that any site selected to host the deep repository will safely contain and isolate used nuclear fuel, protecting humans and the environment over the very long term, and will be in a community that is informed and willing.

The NWMO will provide resources to assist potentially interested host communities to carefully and thoroughly consider the potential benefits and risks of the project before deciding whether to express interest in hosting the facility. The community will decide if it wishes to participate in the siting process at each step.

Potentially interested communities may explore their interest in the project in the way they see fit, with the support of the NWMO and funding to both seek independent advice and involve residents in becoming informed and in assessing interest in the project. A willing community is only asked to sign a formal binding agreement at the end of detailed site investigations and just prior to launching the regulatory review process.

Surrounding communities will be engaged in a regional assessment to identify potential effects of the project on the broader region, including those associated with **the transportation of used fuel to the site.** The NWMO is committed to involving First Nations, Métis and Inuit who may be affected by implementation of the project.

Worry about transportation.

Third party review and advice is proposed to ensure safety and to confirm that the best available scientific, engineering and social science knowledge and Aboriginal Traditional Knowledge is incorporated throughout the process. The project will be subject to regulatory reviews and approvals that will assess and, if appropriate, confirm that the project can be safely implemented at the site, and that the interests of the community, and the nation, are protected. The NWMO must demonstrate that the repository will meet the safety standards defined by the Canadian Nuclear Safety Commission (CNSC) and the Canadian Environmental Assessment Agency (CEAA) before it will be allowed to proceed with the project.

Why?

Throughout the site selection process, the NWMO will foster broad discussion to build public awareness and learning about the project.

What defines a community? Will it be the whole community or just city council? How many must agree?

The Proposed Process - The steps in brief

We invite you to review more about the *Proposed Site Selection Process* (www.nwmo.ca) and to provide your comments to NWMO.

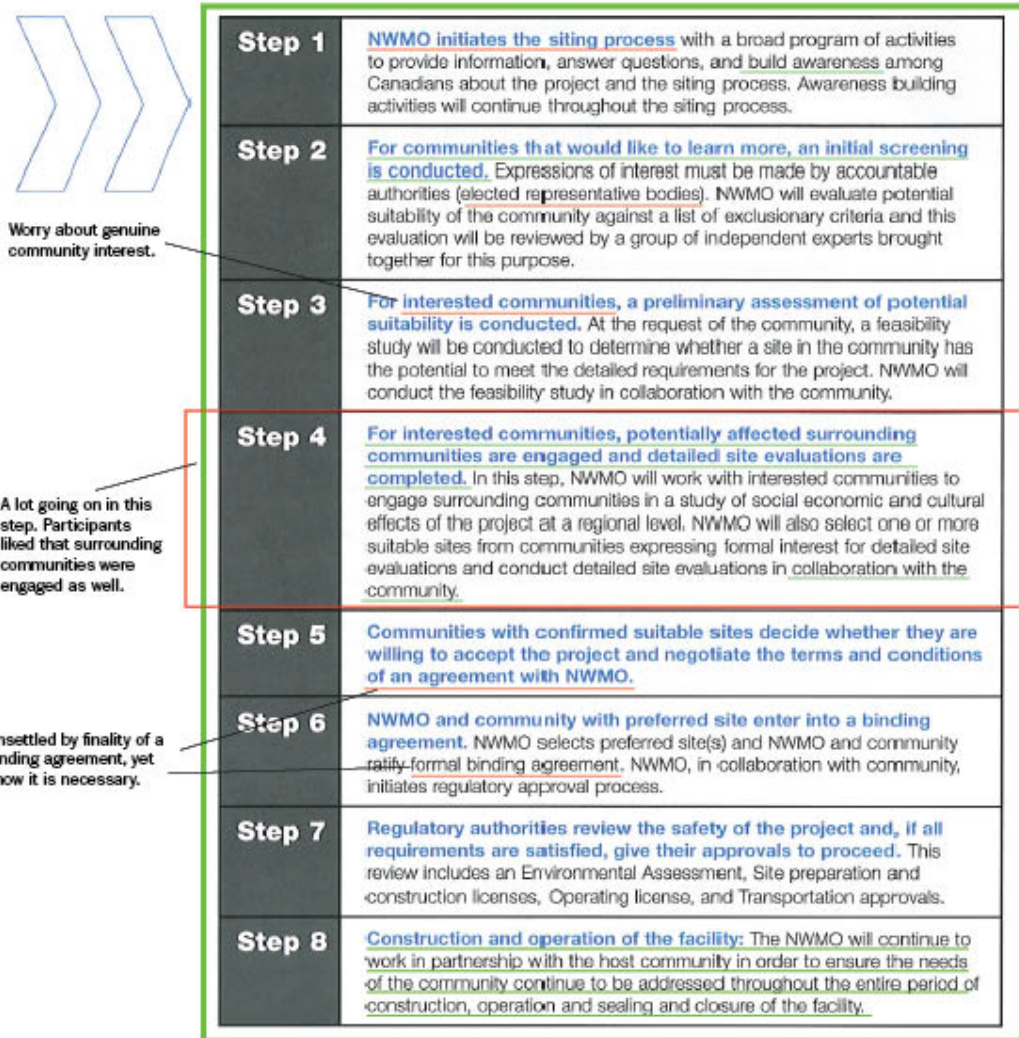


Chart is far preferred to previous page – far more concise.

Community Well-Being

All of the community?

THIS NATIONAL INFRASTRUCTURE PROJECT will be implemented through a long-term partnership involving the community and the NWMO. It is important that the project will be implemented in a way that will help the host community enhance its well-being, or quality of life, and sustainability.

Implementation of the project will have significant economic benefits for a community, the region and the host province from the construction and operation of the facilities and associated research infrastructure, extending over many decades. The project offers employment, income and other benefits.

The *Proposed Site Selection Process* recognizes that a project of this size may also contribute to social and economic pressures in the community that will need to be managed by NWMO and the community as part of implementation. The *Proposal* encourages communities to carefully consider their interest in the project in light of the long-term plans and aspirations which the community has for its future.

Share Your Thoughts

We invite you to share your thoughts on whether the proposed site selection process is appropriate and what changes, if any, need to be made. The comments you and others make will be used to refine the design of the process. To help initiate this conversation, we invite you to consider these questions:

1. Are the proposed siting principles fair and appropriate? What changes, if any, should be made?
2. Are the proposed decision-making steps consistent with selecting a safe site and making a decision which is fair? What changes, if any, should be made?
3. Does the proposed process provide for the kinds of information and tools which are needed to support the participation of communities which may be interested? What changes, if any, should be made?
4. What else needs to be considered?

We look forward to working with you to confirm an appropriate site selection process for this important national initiative. Please attend an upcoming information session in your region, complete a workbook, fill out a survey or make a submission on the NWMO website: www.nwmo.ca.

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IV. HEAT CHART: CHAPTER REVIEW

III. A Fair Process

Do not like the sentence beginning with "and".

Canadians told us they want to be sure, above all, that the site for the deep underground repository is safe and secure for people and the environment now and in the future. The process for choosing that site must be grounded in values and objectives that Canadians hold important. The process must be open, transparent, fair and inclusive. And the process must be designed in a way that citizens across this country are confident that the highest scientific, professional and ethical standards will be met.

The proposed process addresses the broad range of issues and protections that people told us are important for any appropriate siting process for Canada. It draws from experiences and lessons learned from past work and processes developed in Canada to site facilities for the management of hazardous material. It also draws from similar projects in other countries pursuing the development of a deep underground repository.

The proposed site selection process is designed to use a partnership-based approach to:

1. help ensure that any site that is selected to host this facility will safely contain and isolate used nuclear fuel for a very long period of time;
2. assist the potentially interested host community (municipalities, other municipal structures, Aboriginal governing entities or combination of these) to consider carefully and thoroughly the potential benefits and risks to their community associated with this project in their decision whether to express interest and ultimately willingness to host this project;
Like the involvement of surrounding communities.
3. involve affected surrounding communities, regions and other jurisdictional levels potentially affected by the project and transportation of used fuel, in the identification and assessment of social, economic and cultural effects of the project as part of a broader regional assessment;
4. appropriately involve First Nations, Métis and Inuit who may be affected by the implementation of this project; and
How?
5. help foster an ongoing public conversation on questions to be answered and issues to be addressed throughout the site selection process.

The approach is built on a set of guiding principles and is composed of seven key steps.

List 8 steps on pg.19

Do not like / skeptical of NWMOs involvement in consideration process/awareness campaign.

Guiding Principles

In the design of *Adaptive Phased Management*, the NWMO made four important commitments as to how such a process must work. These are the starting point for the design of the siting process:

- **Focus on Safety:** Safety, security and protection of people and the environment is central to the siting process. Any site selected will need to address scientific and technical siting factors to ensure protection for present and future generations and the environment for a very long period of time. All applicable regulatory requirements will need to be met and, if possible, exceeded. How long?
- **Informed and Willing 'host community':** The 'host community' that is the local geographic community in which the facility is potentially to be located, must be informed and willing to accept the project. The local community must show it has an understanding of the project, and how it is likely to be impacted by it. As well, the local community must demonstrate that it is willing to accept the project. Demonstrates that it is not just elected official making decisions.
- **Focus on the nuclear provinces:** As identified by Canadians involved in the NWMO study, fairness is best achieved with the site selection process focused within the provinces directly involved in the nuclear fuel cycle: Ontario, New Brunswick, Quebec and Saskatchewan. These provinces will be the focus of NWMO siting activities. Communities in other regions which identify themselves as interested in possibly hosting the facility will also be considered. Those who produce should be responsible.
- **Right to withdraw:** Communities that decide to engage in the process for selecting a site, as potential hosts, have the right to end their involvement in the siting process at any point up to and until the final binding agreement is signed and the project is submitted for regulatory approvals. Like that communities are not bound to their decisions until a final agreement is signed.

The NWMO proposes the following additional principles to guide the site selection process:

- **Siting Process led by 'interested communities':** The steps in the siting process will be driven or triggered by communities expressing interest in the project and exploring their potential suitability as host over a series of steps. A community will proceed to next step only if it chooses to do so. Potentially interested communities may explore their interest in the project in the way they see fit, with the support of the NWMO as requested by the community, and with funding available to the community to both seek independent advice and peer review as well as to involve residents in the community to become more informed about the project and to assess interest, at each stage.
- **Definition of 'interested community':** For the purpose of the initial steps in the site selection process, an 'interested community' refers to a community -- defined as a political entity such as cities, towns, villages, municipalities, regions, and other municipal structures -- which are interested in the siting process. 'Interested communities' also include Aboriginal governments

which are interested in the siting process. An 'interested community' may also be made up of a combination of these.

- **Definition of 'interested community' in the special case of Crown Land:** In the case of crown land and unorganized territory, the provincial government would be considered an 'interested community' in consultation with potentially affected Aboriginal peoples.

Essential.

- **Aboriginal rights, treaties and land claims:** The siting process will respect Aboriginal rights and treaties and will take into account that there may be unresolved claims between Aboriginal communities and the Crown.
- **Shared Decision-Making:** The site selection decision will be made in stages and will entail a series of decisions about whether and how to proceed. Each potential host community, and later the host community, would be involved in decision making throughout the process. For example, criteria and procedures to assess the effects of the project on the community would be collaboratively developed and assessed with NWMO.
- **Inclusiveness:** In addition, the NWMO will respond to and address where appropriate the views of other communities that are most likely to be affected by implementation and the views of provincial governments that could be affected. These communities and groups will have full opportunity to have their questions and concerns heard and taken into account in decision-making on a preferred site. NWMO will provide the forms of assistance they require to formulate and communicate their questions and concerns.
- **Informing the Process:** The selection of a site will be informed by the best available knowledge – including science, social science, Aboriginal Traditional Knowledge, and ethics – relevant to making a decision and/or formulating a recommendation throughout the process. Consistent with NWMO's commitment to transparency in its work, the information which is collected and used to assess the potential suitability of a site will be the subject of **third party review** and will be published on the NWMO website for public review and scrutiny throughout the process.

Who?

- **Community Well-being:** An important objective of project implementation will be to foster the long term well-being, or quality of life, of the community in which it is implemented. The site selection process is designed to assist the potential host community to think carefully and thoroughly about the potential benefits and risks to their community associated with this project in assessing their interest, and ultimately willingness.

Extra period

- **Regulatory oversight:** Once a willing host community has been identified, and a preferred site has been selected and its safety assessed through detailed study, construction of the facility will not proceed until it has been further demonstrated that the safety, health and environmental protection standards set by the regulatory authorities can be met and enforced. The project

and site will be independently reviewed in a stepwise fashion through a series of regulatory approval processes as outlined in the *Canadian Environmental Assessment Act* and the *Nuclear Safety and Control Act*. These regulatory processes involve detailed independent review as well as the conduct of public hearings.

Ensuring the well-being of the community will be a continuing focus of federal government oversight of this national project. As required by the *Nuclear Fuel Waste Act (2002)*, the NWMO will report to the Minister of Natural Resources every 3 years on: significant socio-economic effects of NWMO activities on a community's way of life or on its social, cultural or economic aspirations; the results of its public consultations; and, the comments of the Advisory Council on these activities.

Long
time.

Steps in the Process

The decision about an appropriate site is proposed to be made over a series of steps. The proposed steps in the process are outlined 'at a glance' in the table which follows, and then in more detail in a second table. It is expected that individual communities will proceed through the steps in a pace and manner which reflects their needs and preferences. Individual communities may find themselves at different points in the process at any given point in time.

The Proposed Process - 'At a glance'

1. **NWMO initiates the siting process** with a broad program of activities to provide information and build awareness, answer questions, among Canadians about the project and the siting process. Awareness building activities will continue throughout the siting process.
2. **For communities that would like to learn more, an initial screening is conducted.** Expressions of interest must be made by accountable authorities (elected representative bodies) or their delegates. **NWMO will evaluate potential suitability of the community against a list of exclusionary criteria and his evaluation will be reviewed by a group of independent experts brought together for this purpose.**
Typo
3. **For interested communities, a preliminary assessment of potential suitability is conducted over a 1 to 2-year period.** At the request of the community, a feasibility study will be conducted to determine whether a site in the community has the potential to meet the detailed requirements for the project. **NWMO conducts these feasibility studies in collaboration with the community.**
Long time.
4. **For interested communities, potentially affected surrounding communities are engaged and detailed site evaluations are completed over a 5 to 7-year period.** NWMO will encourage interested communities to involve potentially affected surrounding communities, region and **Aboriginailan** governments as early as possible in conversations about the potential suitability of the community and site. **If not already involved, at this point in the process, NWMO will work with interested communities to engage surrounding communities in a study of social economic and cultural effects of the project at a regional level.** Also in this step, NWMO selects one or more suitable sites from communities expressing formal interest for detailed site evaluations and conducts detailed site evaluations in collaboration with the community.
5. **Communities with confirmed suitable sites decide whether it is willing to accept the project and negotiates the terms and conditions of an agreement with NWMO.**
6. **NWMO and community with preferred site enter into a binding agreement.** NWMO selects preferred site(s) and NWMO and community ratify formal binding agreement. NWMO, in collaboration with community, initiates regulatory approvals process.
7. **Regulatory authorities review the safety of the project and, if appropriate, give their approvals to proceed.** This review includes an Environmental Assessment, Site preparation and construction licenses, Operating license, and Transportation approvals.
8. **8. Construction and operation of the facility:** The NWMO will continue to work in partnership with the host community in order to ensure the needs of the community continue to be addressed throughout the entire period of construction, operation and closure of the facility.
Typo.

