

ENGAGING YOUTH AND TRANSFERRING KNOWLEDGE

Raising awareness and facilitating youth participation in dialogues to enable future decision-making around the long-term management of used nuclear fuel

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ABSTRACT (AS PER TITLE)

Youth engagement is a key component of the work of the Nuclear Waste Management Organization (NWMO) as it collaborates with Canadians to implement Adaptive Phased Management (APM), Canada's plan for the long-term management of used nuclear fuel. Knowledge transfer is an important aspect of APM implementation, which will span several decades and will need to be flexible enough to adjust to changing societal values and new information. By engaging youth, the NWMO is putting in place mechanisms for ongoing societal learning and capacity building, so that future generations will be well-equipped to make decisions and participate in future dialogues on APM. The NWMO convened a Youth Roundtable, comprised of 18- to 25-year-olds with a diversity of backgrounds and experience, to seek advice on the best approaches to engaging youth on this topic. In May 2009, the Roundtable presented its recommendations to the NWMO and its Advisory Council, providing valuable guidance on: development of dynamic messages and communications materials that will resonate with young people; use of new technologies and social media to engage youth where they are already connecting and conversing; and a range of activities to engage youth through the educational system and in their communities. The NWMO has begun to implement many of the Youth Roundtable recommendations and is developing longer-term implementation plans, including a framework for education and outreach to youth. Through its Corporate Social Responsibility (CSR) Program, the NWMO is laying the foundation for greater science and technology literacy and enhanced community engagement among young Canadians. Additionally, the NWMO is working with Aboriginal peoples to develop strategies for further engagement of Aboriginal youth, as part of the organization's ongoing collaborative work with Aboriginal peoples that could be affected by the implementation of APM. Youth engagement will continue to be a NWMO priority moving forward, and efforts will be made to augment youth participation as appropriate. Although the formal mandate of the Youth Roundtable has ended, the NWMO is considering opportunities for the group's future involvement.

1. INTRODUCTION

The mission of the Nuclear Waste Management Organization (NWMO) is to develop and implement, collaboratively with Canadians, a management approach for the long-term care of Canada's used nuclear fuel that is socially acceptable, technically sound, environmentally responsible and economically feasible.

Broad and ongoing stakeholder engagement is a core principle guiding fulfillment of this mission. Following its establishment in 2002 under the *Nuclear Fuel Waste Act (NFWA)*, the NWMO undertook a three-year national dialogue and study to evaluate options and recommend a management approach for used nuclear fuel. Through engagement of more than 18,000

citizens and specialists, and 2,500 Aboriginal people, Adaptive Phase Management (APM) emerged as the preferred Canadian approach.

In 2007, the Government of Canada accepted the NWMO recommendation to proceed with APM. The organization then began its second phase of engagement — involving Canadians in the design of a process to select a site for a deep geological repository (DGR) for used nuclear fuel. Consultations with more than 7,000 people led to the 2010 publication of a process for selecting an “informed and willing” host community for the DGR.

Stakeholder engagement will continue to be central to the NWMO's work as the focus shifts to implementing the site-selection process. This will involve engagement in communities expressing interest in potentially hosting the DGR, as well as with Canadians who could be affected in neighbouring communities, the larger region and along the transportation corridor for the used fuel. Engagement of youth has been part of the NWMO's work throughout all phases and will continue to be critical moving forward.

2. IMPORTANCE OF YOUTH ENGAGEMENT TO APM

Adaptive Phased Management (APM) is a project for the long-term; it will be developed and operated over many decades and will involve several generations to come. At the heart of APM are important principles of intergenerational fairness and intergenerational decision-making. In terms of fairness — the initiative recognizes that today's generation must take active responsibility to achieve a safe long-term response to Canada's nuclear waste issue to be fair to future generations. At the same time, the plan needs to provide flexibility along the way for future generations to make their own decisions, based on evolving technical knowledge and societal values and needs. It is the intergenerational aspect of the management of used nuclear fuel that forms the basis of the NWMO's youth engagement program.

The NWMO seeks to lay the foundation for future decision-making, and to give Canadians the knowledge and tools to address the challenges that may emerge over the course of APM implementation. Reaching out to young people to raise their awareness of APM and increase their literacy about nuclear waste management will prepare them for their future responsibilities as tomorrow's potential (a) interested citizens, (b) members of an interested host community, (c) decision-makers, (d) researchers/experts, and (e) employees.

Youth engagement and the establishment of long-term collaborative processes involving youth and other stakeholders will foster societal learning, capacity building and knowledge transfer — to build and sustain the ongoing involvement of Canadians in APM well into the future.

3. THE YOUTH ROUNDTABLE

3.1 Purpose

The NWMO recognized the value of hearing the voices of young people themselves, as it formulated strategies for informing and engaging young audiences. This led the NWMO to convene a Youth Roundtable to provide advice on how best to communicate this important national initiative to youth. The NWMO wanted to assemble a group of individuals with a diverse range of perspectives, to gain broad insight into how to communicate with young people who aren't necessarily knowledgeable about or particularly interested in nuclear energy issues.

3.2 Participants

In 2008, the NWMO contracted the services of an independent firm to identify and invite 16 individuals to participate in the Youth Roundtable. The participants ranged from age 18 to 25 and represented the four Canadian provinces involved in the nuclear-fuel cycle — New Brunswick, Quebec, Ontario and Saskatchewan. They included young adults of varying demographic backgrounds and diverse educational and work experiences, young men and women from urban and rural communities, and four Aboriginal youth.

Members were at different life stages, ranging from high school and university students to employed workers and people raising young families. They had an array of experiences from scientific and technical backgrounds to interests in ethics, public policy, social sciences and community involvement.

3.3 Terms of reference

The NWMO asked the members of the Youth Roundtable to provide recommendations in three areas:

- Raising awareness of the issue of used nuclear fuel and the mandate of the NWMO with youth audiences;
- Building interest and understanding among youth about Canada's chosen approach to the long-term management of used nuclear fuel, Adaptive Phased Management (APM); and
- Facilitating participation of youth in the dialogues and decision-making processes associated with the implementation of APM.

The NWMO sought input on how to reach out to young people and effectively communicate about this project as a building block for the future, as today's youth grow into tomorrow's citizens and decision-makers. As such, the focus of the Youth Roundtable was not to seek input to change decisions that had already been made (for example, the choice of APM as Canada's long-term strategy for management of used nuclear fuel) but rather to build a foundation of understanding and interest for future decision-making.

3.4 How the Roundtable operated

The Roundtable met several times in 2009, both in-person and online, to discuss and develop its recommendations. Members also engaged in interviews with their peer groups to help inform their views. In May 2009, four members of the Roundtable presented the group's recommendations and comments to the NWMO and its Advisory Council.

In accordance with best practice, the NWMO was committed to demonstrating that it had listened to the Youth Roundtable and had considered its counsel in development of youth engagement plans. In September 2010, the NWMO invited the Roundtable members to a final two-day meeting to discuss specific actions the organization had taken in the intervening 15 months and to seek their feedback regarding the NWMO's efforts to date.

4. CHALLENGES TO YOUTH ENGAGEMENT

As part of its May 2009 presentation to the NWMO, the Youth Roundtable flagged key challenges that could affect the NWMO's ability to engage and communicate with young Canadians about its mandate and APM.

According to the Roundtable, the NWMO needs to design youth engagement strategies aimed at overcoming perceived communication barriers, including:

- A low level of youth literacy regarding Canada's energy landscape and nuclear fuel cycle; and
- The fact that management of nuclear waste is largely a technical issue that is not intrinsically interesting to a group that is inundated with information and advertising.

Other identified challenges related to the way in which young people receive information; how they engage with information providers; and the communication sources they most trust. The Roundtable highlighted the fact that young people are engaged more as consumers than citizens and are used to being targeted by corporations that use sophisticated engagement techniques. In addition — youth prefer to receive information that is interactive, dynamic and multimedia-based; they are distrustful of institutions and are more likely to trust peers; and they have access to the full Web universe of information sources and conversations on nuclear energy and waste issues — some of which could compete against the NWMO's messages.

The recommendations of the Youth Roundtable were designed to help the NWMO respond to these communications challenges.

5. CONTRIBUTIONS OF THE YOUTH ROUNDTABLE TO THE NWMO'S WORK

The Youth Roundtable provided the NWMO with valuable recommendations on how best to communicate with and engage young people on Canada's plans for long-term management of used nuclear fuel. The NWMO has implemented many of the recommendations and will continue to do so in a phased manner, in alignment with organizational priorities and the site-selection process.

5.1 Targeted communications and messaging

The youth representatives delivered advice on content — how to frame messages in a way that would resonate with young people — as well as on the format and style of communications materials that youth would find most appealing. Included in their presentation was a video featuring comments from all members of the Roundtable, in which they discussed the value of their deliberations, and highlighted their views on youth's communication needs and some of their key recommendations. (The video is available on www.nwmo.ca.) Use of this tool further underscored the Roundtable's emphasis on the importance of employing a variety of media and technologies to communicate to youth.

5.1.1 Key Youth Roundtable recommendations

The Roundtable members had analyzed the NWMO's communications materials in terms of their appeal and relevance to youth. They recommended a number of new approaches to the content and packaging of messages, including:

- Focus on the issue (as opposed to the NWMO as an organization), and clearly explain why young people should care and how they can get engaged in the dialogue.
- Keep the terminology as simple as possible for maximum accessibility: Avoid corporate jargon and unexplained technical terms in informational materials.

- Develop dynamic multimedia materials to connect with young people. Make materials less text-heavy and add more visual images including animation and graphic representations. The members said that using stimulating visuals in all materials would enhance communication across ethnic, linguistic, educational and age boundaries.
- Develop more concise “digestible” materials around specific topics (i.e. layered presentation of information for different levels of interest and understanding).

5.1.2 The NWMO's response

The Youth Roundtable has made significant contributions to the NWMO's development of communications materials for all audiences. The NWMO began implementing many of the recommendations on “youth-friendly” enhancements in 2009 and 2010 — making amendments to some existing materials and developing new communications tools, including those supporting initiation of the site-selection process. NWMO has worked to ensure that materials are more readable, less text-heavy, visually interesting, interactive, and free of corporate and technical jargon. It has also worked to forefront the issue first (not the organization) to seize attention in its informational products.

The organization added 3D animation to an informational DVD and initiated development of a more comprehensive set of DVDs on a variety of topics including: the nuclear fuel cycle; transportation; health, safety and the environment; the regulatory framework; and the international context.

The NWMO has also developed an interactive travelling exhibit which facilitates learning by allowing the visitor to manipulate models and experience a virtual deep geological repository (DGR). The exhibit includes objects to touch and assemble, (for example, rock samples and models of used fuel containers), an interactive touch-screen and videos with sound. The mobile interactive exhibit will have modules added over time on different topics.

5.2 **Online engagement**

5.2.1 Key Youth Roundtable recommendations

The Youth Roundtable also made a number of recommendations on how to reach youth through online engagement. The members recommended that the NWMO enhance its website — making it easier to navigate and more dynamic (for example, with videos and blogs), and keeping the site fresh with regularly updated content. The Roundtable also recommended creation of more documents with interactive and hyperlinked content.

The Youth Roundtable also advised the NWMO to harness the communications power of social media. It recommended a shift from a focus on the organization's website to creation of a “webspace” — engaging and educating youth through online conversations about the issues, using a broad spectrum of social, interactive and peer-to-peer media.

5.2.2 The NWMO's response

The NWMO recognizes the importance of harnessing the opportunities provided by new media technologies to raise awareness and broaden engagement.

The organization has begun to execute many of these technology-related recommendations. It has made enhancements to the website; posted videos on social media sites such as YouTube and Yahoo Canada Videos.

Work to implement these strategies will continue. The organization is committed to continuing to explore opportunities to evolve its digital presence and evaluate the impact of new technologies and new media on its work. This includes development of a social media strategy; the NWMO has hired a third-party expert to provide insight on the social-media landscape and help the organization move into this area of communications.

5.3 Youth outreach in schools and in communities

5.3.1 Key Youth Roundtable recommendation

The Youth Roundtable presented several recommendations to guide NWMO engagement with youth in educational institutions, as well as with young people beyond school-based populations. The Roundtable encouraged the NWMO to identify opportunities to provide presentations in schools, particularly to students involved in social and technical academic disciplines relevant to the work of the NWMO. For younger students, the Roundtable suggested that the NWMO consider providing support for youth participation in science fairs and after school science clubs in order to foster learning opportunities. At a local community level, the members recommended that the NWMO develop a mobile exhibit that could be showcased at community events and to consider fostering community well-being for youth by supporting local projects.

5.3.2 The NWMO's response

The organization has begun developing a longer-term framework for youth education and outreach that incorporates many of the Youth Roundtable's recommendations. Several of the outreach-related recommendations also tie in to the NWMO's Corporate Social Responsibility (CSR) program.

5.3.2.1 Corporation Social Responsibility Program: Focus on youth

The NWMO's Corporate Social Responsibility (CSR) Program complements and supports its youth education and outreach efforts. Initiated in November 2008, the CSR Program has broader goals than simply engagement on APM; it is designed to lay the foundations for greater science and technology literacy and community engagement among young Canadians. There are two main areas of focus:

- **Contributing to national organizations that reflect the NWMO's interest in increasing youth pursuits in science and technology**

Between 2008 and 2010, the NWMO has sponsored national organizations that support science and technology learning among young Canadians. Funding for Youth Science Canada has enabled students with top science projects from Saskatchewan, Ontario, Quebec and New Brunswick to participate in an international science expo that brings together young people from around the world to exchange ideas, compare projects and instill a culture of science by fostering networking and international collaboration. The NWMO's contribution has doubled the number of youth participants, and enabled New Brunswick and Saskatchewan participation for the first time. In 2009, Team Canada won Best Delegation Award for the first time at the international expo.

The NWMO also provides bursaries to high-achieving science and technology students from Saskatchewan, Ontario, Quebec and New Brunswick to participate in Shad Valley's renowned summer educational program.

Contributions to Actua's National Aboriginal Outreach Program provides Aboriginal youth in Saskatchewan, Ontario, Quebec and New Brunswick the opportunity to participate in science-focused workshops and summer camps that take place in Aboriginal communities. Where possible, the camps also show how Traditional Knowledge can play a role in the study of science.

- **Funding requests for community-based projects that are focused on initiatives that help build capacity for more active, engaged and informed youth in our communities**

Since 2009, the NWMO has provided funds for 15 community-based projects, through the Community Foundations of Canada, aimed at fostering opportunities for young people to participate in civic life and support them in making a positive difference by becoming involved in activities or issues that make meaningful contributions to their communities.

Grants are focused on:

- Youth and Education: Programs that encourage learning and achievement, and help develop future generations;
- Youth and the Environment: Programs that support local initiatives to promote understanding of, and/or address, our environmental impacts; and
- Youth and Science & Technology: Programs that promote an understanding of, and appreciation for, science and technology.

5.3.2.2 Draft framework for education and outreach to youth

The NWMO is in the process of developing a framework for youth education and outreach that, at a general level, will continue efforts to communicate and engage with the youth population-at-large in Canada. However, increasingly, program efforts and activities will respond to local needs and priorities within the siting communities and regions.

6. ENGAGEMENT OF ABORIGINAL YOUTH

From its inception, the NWMO has sought to involve Aboriginal peoples in the development of its plans and processes, and to build long-term relationships with Aboriginal peoples that may be affected by the implementation of APM. An important component of this engagement is education and outreach with Aboriginal youth.

The NWMO recognizes that the voices of Aboriginal youth and capacity building must be included in the engagement processes underway and planned. Aboriginal youth are faced with changing demographic and lifestyle realities that will necessitate evolving the approach to Aboriginal youth engagement over time in order to balance respect for Aboriginal traditions and cultural practices, while also recognizing the influence of non-Aboriginal cultural practices.

In addition to Aboriginal youth participation in the Youth Roundtable and sponsorship of Actua's National Aboriginal Outreach Program, the NWMO has taken a number of steps to inform and engage young Aboriginal peoples.

6.1 Aboriginal Elders Forum and other initiatives

The Elders Forum brings together Aboriginal Elders and youth. Youth members of the Aboriginal Elders Forum have focused on understanding the long-term management of used nuclear fuel and the site-selection process and helping to interpret this to Elders.

In 2008, two Aboriginal students interviewed Elders in the four nuclear provinces about their experiences in communities undergoing change from large development projects, and about how to interweave Traditional Knowledge and Western science. The students also made presentations to young people about the NWMO and its work. Youth members of the Forum have continued with projects to gain a deeper understanding of the long-term management of used nuclear fuel.

Three Aboriginal members of the Youth Roundtable attended the July 2009 Elders Forum to be part of the discussion with youth members of the Forum. During a facilitated brainstorming session, a portion of the agenda was dedicated to a discussion about identifying opportunities for youth to become involved in community issues. Additionally, one Aboriginal member of the Youth Roundtable participated in the July 2010 Elders Forum.

The NWMO's work with Aboriginal youth has included sponsorship of the Youth Outdoor Wellness Conference held annually for First Nations and Métis youth in northern Saskatchewan and planned through the Ile-a-la-Crosse Friendship Centre.

As communities engage in the site-selection process, the NWMO will work with the community (or communities) to support culturally appropriate Aboriginal-focused engagement programs for youth.

7. CONCLUSION: FUTURE YOUTH ENGAGEMENT

The NWMO will continue to include youth in its engagement activities and, where possible, augment youth participation in these activities. Multi-party dialogues, Aboriginal dialogues, focus groups and telephone surveys, and citizen panels will continue to include representation from young people.

Although their formal mandate has ended, members of the Youth Roundtable have offered to continue to assist the NWMO in the development and delivery of its youth engagement initiatives, including as a sounding board on new communications materials and initiatives, and in education and outreach activities in their communities.

No specific meetings have been scheduled or a role defined but the NWMO is considering opportunities for further input from Youth Roundtable members.