What we heard:
Implementing Canada's plan in 2019

DECEMBER 2019

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

At the end of each year, the Nuclear Waste Management Organization (NWMO) reports on the content and nature of our ongoing dialogue with communities, interested individuals and organizations as we advance the implementation of Canada's plan. These "What we heard" reports are intended to share these conversations more broadly, and invite others who may be interested to add their voice and help shape the conversation.

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INTRODUCTION

In 2019, the NWMO continued to implement Adaptive Phased Management (APM), Canada's plan to safely manage used nuclear fuel. We moved ahead with technical studies, the implementation of the partnership roadmap, and the exploration of topics of interest to potential host communities, and surrounding municipal, First Nation and Métis communities.

The 2019 What We Heard Report is the latest in a series of annual reports that document what we heard through ongoing dialogue and engagement with people and organizations in and around the communities in our site selection process, as well as the broader public.

Engaging Canadians

The past year was one of our busiest ever. Throughout 2019, technical and engagement specialists worked in five areas across Ontario, delivering collaboratively designed engagement programs and conducting preliminary studies, with a goal of identifying a single preferred site by 2023.

Working with communities, we implemented a wide range of activities that brought people together to learn about and discuss diverse aspects of this intergenerational challenge. These included one-on-one conversations at community Learn More offices, larger group discussions and public events, open houses, and community workshops. We hosted tours of interim storage sites at nuclear generating stations, and our research and demonstration facilities. Additionally, we offered learning opportunities to interested community groups through presentations at their meetings, and at conferences of all sizes, across the country. We listened to better understand the views of individuals and groups through interviews, at briefings, attendance and participation at regular meetings of community liaison committees (CLCs), and NWMO-sponsored community festivals and events. At some of these events, we showcased the new NWMO Mobile Learn More Centre (LCM) and heard important feedback from visitors about Canada's plan.

Beyond in-person opportunities, we heard from interested citizens through our website (nwmo.ca), CLC websites, and through social media channels, including LinkedIn, Facebook, Twitter and Instagram. Important in-depth discussions also took place at meetings of the NWMO's Council of Elders and Youth, provincial and national Indigenous organizations, and the NWMO's Municipal Forum as well as annual conferences of municipal associations.

Areas of interest

While certain topics of interest remain the same year-to-year, we continue to note emerging conversations as people better understand the project, and what it might mean to them and their community. People are asking more nuanced and detailed questions, exploring new lines of inquiry, and seeking the resources and information to learn and decide about their participation in the project. The 2019 Report describes what we are hearing from people in the context of the following six areas of interest and activity:

Exploring safety together: The protection of people and the environment remains a fundamental concern and topic of discussion when people are first introduced to the APM project. To address this concern, the NWMO and communities collaborated to provide opportunities for the public to learn about the safety case and to have conversations with NWMO and independent experts. Understanding the importance of the project and the related safety case builds confidence and support. Equally, conversations with the public provide direction to the NWMO on additional topics for future study and discussion.

This year in our siting areas, we initiated community participation in environmental baseline planning. We also invited dialogue on site specific safety study aspects that are of immediate interest to community members. Together, with communities, we held learning events suited to the needs of local, regional and Indigenous communities. Topics included the protection of water, the engineered barrier systems that will contain and isolate the used fuel in a deep geological repository, and local ecology.

Adaptive Phased Management and the site selection process: In 2019 we encountered and spoke with many people who had not been previously aware of the project, such as newly elected civic leaders, or people at large public events. Questions about the NWMO as an organization, and how APM was developed are common entry points to dialogue. People want to know more about the siting process, how their community got involved, and the criteria that will be used to select a preferred area and site.

We also continued to have conversations with people who have been involved in the project for nearly a decade. Topics include how Canada's plan will adapt to climate change, the progress of new and emerging technologies, such as small modular reactors, or repartitioning and transmutation that might allow for the recycling of existing used nuclear fuel.

Exploring the potential for partnership and fostering community well-being: In 2019, we worked collaboratively with communities to advance the partnership road map. This included multiple conversations focused on preparing plans and initiatives to advance partnership, implementing community surveys, and what the project might look like in a particular community and region. As we work collaboratively with communities to plan, the nature of the conversation becomes more detailed and focused. Together, we are exploring topics such as: How do we measure willingness? What does it mean to be informed in order to make an 'informed decision'? And, how will the project impact the community and the region?

Borehole Studies and Land Access: People in and around the Ignace, Hornepayne and Manitouwadge siting areas remain engaged on plans for borehole drilling. Conversations evoke both excitement about the project, and raise questions about its impact on hunting, fishing and trapping.

This year, we launched a land access program to prepare for drilling in the Huron-Kinloss and South Bruce siting areas. Reception from communities engaged in the land access process has been positive and spurred numerous questions about the potential impact of the project on local agricultural land and its products, as well as business opportunities.

In both the north and south, we learned about deep community commitments to the land, and what it means for people's way of life.

Learning from Indigenous Knowledge: During 2019 First Nations and Métis communities engaged with the NWMO advanced Indigenous Knowledge and land-use studies, and fostered learning about the project and the process with their neighbours. We continue to hear from engaged communities about the importance of interweaving western science and Indigenous Knowledge, and this year we delivered our third presentation in the Journey of Water series. This presentation focuses on the relationship between water and copper, the material that will coat the used fuel container. Building on the 2018 release of a Reconciliation Statement, we published a Reconciliation Policy that provides a roadmap to meet commitments to create a better future and establish new relationships with Indigenous peoples.

Transportation: We continued ongoing dialogue with Canadians to explore the basis of confidence in the safety of transportation of used nuclear fuel. Additionally, we engaged a cross-section of citizens in public attitude research and dialogue. The primary consideration remains the safety of people, including those working with and transporting the used nuclear fuel and those along transportation routes. People have also emphasized the need for strong procedures to secure shipments from threats such as terrorism or theft, and response plans in the case of emergencies along transportation routes. We heard from community leaders and response personnel that first responders need to be equipped, trained and supported. Also, transportation planning needs to be able to respond to changes in technology, such as self-driving vehicles.

In addition to discussion on the six key themes and issues raised through ongoing engagement, this report also summarizes input we gathered from social media and online conversations, along with a summary of comments received on our annual implementation plan.

The 2019 *What We Heard* Report includes an appendix which describes a rolling list of frequently asked questions, reflective of both emerging areas of interest, and historical topics. As a whole, this report reflects main points raised by the many individuals and groups that, in the spirit of learning and collaboration, worked to advance Canada's plan in 2019.

ONGOING AREAS OF INTEREST

A rolling list of common questions and topics encountered between 2013 and 2019 can be found in the *Appendix: Ongoing areas of interest* ("*Appendix*"). While many questions are posed year-over-year, new areas of inquiry are emerging or evolving in tandem with the implementation of subsequent phases of the project. This year, some new areas of interest emerged, including: the work associated with land access in the Huron-Bruce siting areas; borehole studies in the northern siting areas; our approach to partnership and capacity building; and discussions on expanding and strengthening relationships, especially with regional neighbours and First Nations and Métis communities.

Lyndon Linklater leads a Cultural Awareness training session attended by community members from the Huron-Bruce area in May 2019

EXPLORING SAFETY TOGETHER

Safety has been front and centre since the NWMO was established in 2002. From those early days, we heard from Canadians and Indigenous communities that the project must be safe for both people and the environment, and safety must be the first consideration. Through ongoing dialogue with interested communities, First Nations, Métis and surrounding communities, we have explored a range of safety-related topics of interest, which are largely similar year-to-year, and are reflected in the health and safety questions we listed in the *Appendix* of this report.

Through a dialogue-driven approach, communities are shaping the agenda, and helping to introduce the project to neighbours at home and within the region. Together, we are designing tools and forums for conversations that address topics related to broad questions such as: How does NWMO assess safety of the deep geological repository design? How will we protect people and the environment? How will we ensure security at a future site? And, how can we safely transport used nuclear fuel from interim storage sites to the repository? Such efforts continue to build public confidence in safety.

COMMUNITY DIRECTED LEARNING

We work with communities and interested groups to develop learning plans that identify topics of interest, and provide materials to support community-directed learning. In response to community requests, in 2019 we presented updates to communities about the NWMO's engineered barrier systems, geological studies and safety assessments, with a focus on continuing to build confidence in safety.

Recent NWMO presentations have focused on requested topics, including an update on the safety case for the project, how we will build our understanding of the environment to manage future impacts, and the characteristics of the geology in and around siting areas. A partial list of presentations the NWMO has made to respond to this desire for more information include: the 7th Safety Case Study, Environmental Baseline Studies Design, Transportation Framework, Ensuring the Safety of Borehole Drilling, Clay as an Engineered Barrier, NWMO Corrosion Program, Manufacturing and Testing of Canada's Copper Used Fuel Containers, and the Journey of Water: Water's Relationship with Copper.

From these community-based workshops, presentations and talks, a symposium, as well as tours of NWMO's prooftest facility and nuclear waste management facilities, follow-up questions have provided further direction to the NWMO on additional topics for future discussion. For example: What are the job opportunities and training requirements for container manufacturing, as well as site operations? Will bentonite clay be sourced in Canada? What were the reasons for the NWMO to update the conceptual layout of the repository? In addition to providing direction on future presentation topics, questions and input also provide us with essential feedback on the efficacy of our information provision, and how various aspects of APM are perceived by the public.

EXPLORING SAFETY TOGETHER

COMMUNITY DIRECTED LEARNING *(continued)*

Communities that want to hear about safety from a diversity of voices have received funding to host events that feature speakers and experts from academia, non-profit organizations, the Canadian Nuclear Safety Commission (CNSC) and industry. Presentations from these speakers are usually delivered to all interested members of the public at CLC meetings, and in 2019 have included: Residual Concerns in Siting a Nuclear Fuel Waste Repository by the Canadian Environmental Law Association; Regulatory Update by the CNSC; How Science Fiction has Skewed our Perception of Nuclear by an instructor at the University of Calgary; Academic-Industry Partnership for Exploring the Microbiology of Nuclear Waste Management by a professor from the University of Waterloo, and; Posiva's Journey; From Approval to Construction of the World's First Deep Geological Repository for Spent Nuclear Fuel by Posiva Solutions, the organization responsible for managing Finland's used nuclear fuel.

PROTECTING PEOPLE AND THE ENVIRONMENT

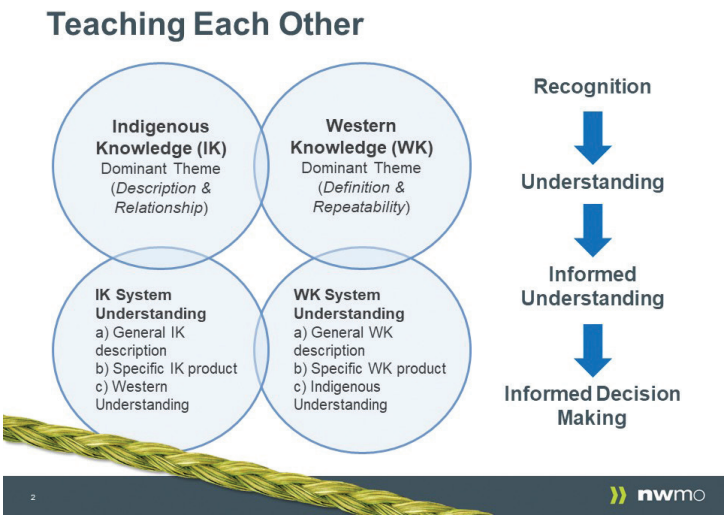
As we develop preliminary site-specific safety cases for the project, our technical experts are asking communities for input on our plans, and encouraging feedback on areas of interest and what a community might hope to have included in future studies. With community input, we developed an accessible format for dialogue on safety assessment with a group of community members. This dialogue provided feedback on potential topics of interest to the community as future studies are developed.

The NWMO has also worked collaboratively with communities through an ongoing engagement series, the *Journey of Water*. This initiative came from water being a subject of vital importance to many people, especially Indigenous communities. We heard there was interest in understanding how our project will safeguard water now and in the future, so through the *Journey of Water series*, we tell the story of water's journey underground, and its relationship with a deep geological repository. In 2019, the NWMO developed the third presentation of the series, this one focused on water's relationship with copper. The *Journey of Water* has been developed collaboratively with input early on from the NWMO's Council of Youth and Elders, and community groups, which has helped align a shared understanding of historic analogues using traditional knowledge and NWMO research. Through these discussions, people have been able to understand the anti-microbial properties of copper using ancient examples of the use of copper as a corrosion barrier for the safe containment and isolation of used nuclear fuel in the repository.

PROTECTING PEOPLE AND THE ENVIRONMENT *(continued)*

This past year, we also facilitated a series of community workshops on environmental baseline sampling program design. These workshops were interactive sessions that used a participatory planning approach to work with diverse groups to gather community-based input for consideration in the design of the program. The workshops brought forward a range of ideas on what communities would want to see in an environmental monitoring program, and what would help communities to trust monitoring program results.

Initial feedback from communities describes the need for honesty and transparency, with publicly accessible data, engagement with and involvement of local communities in training and employment, and consideration of community input on potential impacts on air, water and soil quality, fish, vegetation and wildlife, as well as respecting land and Spirit.



A slide from the latest iteration of the NWMO's presentation, *The Journey of Water*

ADAPTIVE PHASED MANAGEMENT AND THE SITE SELECTION PROCESS

The NWMO has been implementing a site selection process for nearly a decade, and the topics and questions posed by those first exposed to APM remain fairly typical, and are listed in the Appendix. This year, we heard emerging questions about the NWMO's plans to adapt to the development of small modular reactors (SMRs), and how used fuel from these reactors will be managed and stored. People are also interested in how the NWMO will adapt the APM project to challenges posed by climate change, and the status of international and domestic research into alternative streams for used fuel management (i.e. recycling Canada's used nuclear fuel), and if that technology has progressed sufficiently to potentially reduce the amount of waste to be managed by NWMO. This year, the NWMO also invited input ahead of launching an Environmental Responsibility Statement, and a Reconciliation Policy.

Visitors to our proof test facility in Oakville, Ont. are able to see and touch prototypes and models of the technology that will be used in a deep geological repository

INTEREST IN NEW AND EMERGING TECHNOLOGIES

People frequently raise the topic of nuclear generation and new and emerging technologies under development in Canada and around the world. Usually prompted by a news story or program in popular media, visitors to NWMO events or information booths ask about the state of the nuclear industry, or the progress of developing SMRs to power small communities. These conversations are largely exploratory, and reflect people's interest in learning about science and technology, and what it could mean for the NWMO and its mandate to safely manage all of Canada's used nuclear fuel. Common questions in 2019 included: how many CANDU reactors are in Canada and the world? What is an SMR, and how does the technology compare to the CANDU reactors currently operating? What kind of fuel do SMRs use? Will the NWMO be able to manage it safely? Who will manage other radioactive wastes besides the used fuel? Can CANDU fuel be reused or reprocessed in an SMR in an effort to reduce the volume of waste to be managed by the NWMO? Can CANDU reactors overseas reprocess or recycle other kinds of nuclear fuels?

In response to these questions, the NWMO developed a backgrounder published in 2018 on *Small Modular Reactors: Managing Used Fuel*, which remains available to share with interested members of the public. The backgrounder outlines the role of the NWMO as responsible for the long-term management of all Canada's used nuclear fuel, including that created using new or emerging technologies such as SMRs. It also outlines that as research and development of this new and emerging technology continues, we will keep abreast of advancements to anticipate any changes in fuel cycles and the types of waste that may need to be managed in the future. We also continue to share information on new technology through the annual publication of a *Watching Brief on Advanced Fuel Cycles* (available on our website, www.nwmo.ca/adaption). This year, we heard questions about whether a deep geological repository can accommodate additional used fuel from new reactors, and the limits of used fuel retrievability from a repository should new technology allow for the recycling of used nuclear fuel.

The issue of climate change has been a more frequent topic of interest, especially as a point of introduction to the topic of managing used nuclear fuel. There appears to be greater public awareness about the role of nuclear electricity production as a means of reducing greenhouse gas emissions from electricity production. We recognize that climate change is top-of-mind for many Canadians, and that many people are interested in nuclear power as a tool for addressing this global social and environmental problem. Our engagement and technical specialists often speak about the NWMO's specific place at the end of the nuclear fuel cycle, and respond to questions about how Adaptive Phased Management prepares for future climate change, both warming and cooling (i.e. ice ages). People sometimes ask whether the depth of a repository at 500-600m is sufficient to defend it from ice accumulation on the surface, and how the used fuel container is designed to withstand such pressure.

ADAPTIVE PHASED MANAGEMENT AND THE SITE SELECTION PROCESS

EVOLVING POLICIES

We are always reviewing and revising internal policies and procedures, and in 2019 we were proud to finalize a Reconciliation Policy that commits to respectful and meaningful engagement with Indigenous peoples and communities. The application of this policy begins with providing cultural awareness and Reconciliation training to NWMO staff and contractors, and annually publishing a Reconciliation implementation plan to track our progress. More information on the development and Reconciliation Policy is contained in the *Learning from Indigenous Knowledge* section of this report.

In 2019 we drafted an Environmental Responsibility Statement, and invited input on the draft with the Council of Elders and Youth and CLCs. Overall, feedback was positive and people reflected on the ideas in the statement that were meaningful to them. For example, people emphasized the interconnectedness of all living things, the importance that Indigenous knowledge combined with western science as core to the statement, and the need to demonstrate respect for land, animals, and air, water and fire. People emphasized the spiritual connection to the environment, and our model of community well-being which includes a spiritual dimension.

A great deal of input from engagement focused on practical ways in which we could implement the statement together. The final Environmental Responsibility Statement will form part of a future updated Environmental Policy.

STILL LEARNING TOGETHER

Preliminary assessments are being conducted on the geology, safety, environment, and potential for partnership in siting areas. Early results will provide us with the insight we need to find a single site in a willing and informed host community by 2023. Concurrently, communities are learning about the NWMO, APM, and what it means to partner together to implement Canada's plan.

We continue to meet with some community members who are encountering the project for the first time. There is a common set of topics that typically make up these initial conversations, including questions about the current status of the site selection process. For example, How many, and which communities are involved in the process? How many first stepped forward? What studies did the NWMO conduct to narrow down to fewer communities? Is the project safe? Where is used nuclear fuel currently stored?

People want to know about local decision-making, and how to get involved or contribute input. Community members can learn and share at community Learn More Centres, through attendance at monthly CLC meetings, and from NWMO staff present at public events, such as fall fairs, robotics fairs, and movie nights.

STILL LEARNING TOGETHER
(continued)

Outreach to a broad base of residents and regional neighbours was identified by communities as being important. This past year provided us with a large number of local, regional, provincial and national opportunities to share our story. It was also a year when we were able to extend a large number of invitations for community members to share their journey in the site selection process with attendees at conferences, seminars, and other forums. This has been met with enthusiasm and keen interest from people living in and around communities involved in site selection, and we heard many positive comments about how our learning and engagement program gives people the tools to better understand the science and economics of the project.

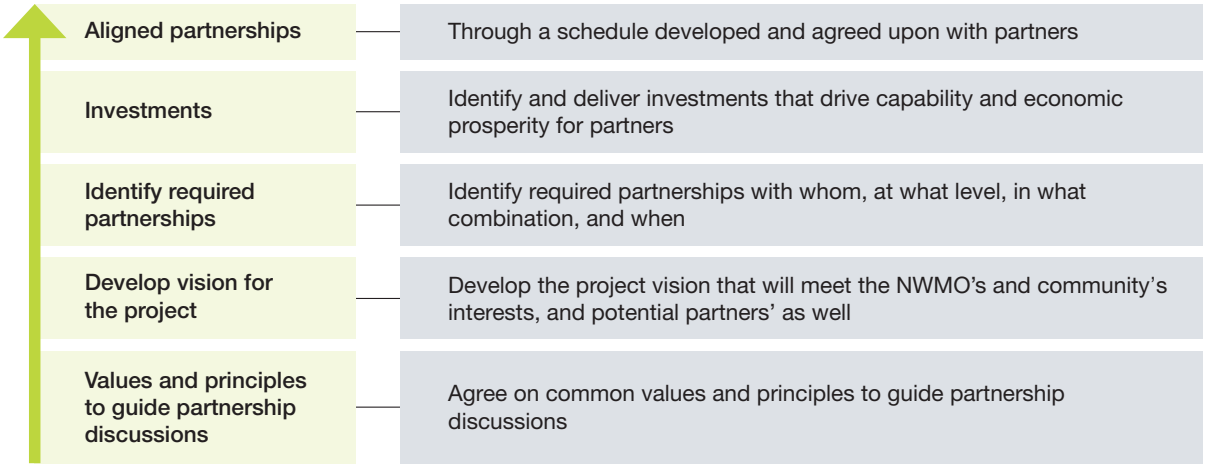
We still hear that the pace of progress is reasonable, especially when considering the long timelines of the project. There remains considerable interest in building local capacity to share information about Canada's plan. Communities in the process have been educating themselves about APM since as early as 2010, and many have stories to share to help their neighbours better understand their community's vision for the future.

Both the NWMO and communities are still learning about one another, together. By now, some people in those communities are carrying on a dialogue with the NWMO that began years ago. The focus of discussion has evolved to reflect their community's advancement in the process, and their increased understanding of the plan and what it might mean for their community's long-term wellbeing. These conversations are also indicative of the beginning of partnership-building that is essential in identifying a single site, and are described in more detail in the next section.

EXPLORING THE POTENTIAL FOR PARTNERSHIP AND FOSTERING COMMUNITY WELL-BEING

The partnership roadmap advanced this year as communities envisioned how the APM project would work in their communities. Partnership Working Groups have been set up in some areas to advance detailed planning and to develop materials to engage in discussions with community residents. This section discusses what we are hearing and learning about as communities work with us to explore the concept of partnership, and what it means for them and the NWMO.

Road map to partnership (2017-22)



PROJECT VISIONING

In late 2019, communities and the NWMO initiated discussions to begin to develop a shared vision of the project for each area remaining in the site selection process. These discussions will continue in 2020, and upon conclusion results will be reported. An eventual project vision will reflect community priorities and objectives for the project were it to be implemented in the area.

Visioning engagement this year provided insight into early discussions on priorities and objectives. Some topics discussed included: growth and enhancement of community amenities and services; diversification of the local economy; retention of young people in the community; and the preservation of the area's environmental integrity.

Project visioning is the second step in the partnership roadmap, and as we move forward in partnership with communities in the siting process, subsequent steps will encourage each community to flesh out their vision, and help set up a framework for planning, negotiations, future studies, and impact assessment work.

In partnership discussions to date, communities have begun to turn their attention to the required regional partnerships and how to achieve them. We are hearing from core communities that regional benefits are important to them, asking "How do we do this together?"

COMMUNITY WELL-BEING AND PROJECT BENEFITS

Ongoing dialogue and the development of a project vision encouraged many broader conversations and shared ideas about community well-being and project benefits.

As residents learned more about the NWMO and the APM project, people talked about the importance of economic benefits in the area and surrounding communities. People asked what we will do to prepare workers for future jobs, including educational opportunities and hands-on training. With ongoing siting activity going on in their hometowns, people were curious about opportunities for value-added or spin-off business development, now and once the project has a site.

Other related questions pointed to other dimensions of well-being, beyond economics, such as protecting the local environment and sustaining a community's distinct culture. We keep hearing questions such as: how is "community" to be defined for the purpose of site selection, and once a single site is identified? How will the NWMO assess and measure a "compelling demonstration of willingness"? Who needs to be part of the partnership? How will benefits be shared equitably? How do we manage social impacts? Will it affect people's health or the local environment, such as lakes and forests?

As the preliminary assessments in communities exposed more people to the project, the implications of potential project impacts, economically, socially, and environmentally, has come into focus. We hear so much about the importance of stewardship of the land, and in some farming communities this interest refers specifically to sustainably managing agricultural land. Through exchanges with interested residents, and through the land access process (discussed in more detail in the section *Borehole Studies and Land Access*), there is considerable interest in knowing how land might be used within and around the footprint of the site, both before and after nuclear operations have initiated. We continue to field questions about impacts on property values, and how the project would influence municipal growth, and the corresponding need to responsibly manage change. Everywhere we work, people express a desire to retain inherent community values such as "the family feel" and "a gentle and hospitable community," in the face of community growth and development.

These, and other project benefit topics, made for robust discussions about partnership.

EXPLORING THE POTENTIAL FOR PARTNERSHIP AND FOSTERING COMMUNITY WELL-BEING

BUILDING CAPACITY AND AWARENESS

In some communities, we hear questions about the local capacity and awareness to actively and meaningfully participate in site selection, or ultimately host the project. Ensuring local capacity and awareness to actively and meaningfully participate in site selection, or ultimately host the project, is an important area of discussion, and we have been providing local resource programs to help foster capacity building. In 2019, opportunities were increasingly pursued as communities explored building partnerships, and we covered meeting and travel costs for learning and engagement, funded employment positions in municipal and Indigenous communities to support involvement in site selection, and increased efforts to engage young people.

For example, community members in some northern siting areas, including groups of students, have travelled to Southern Ontario to visit NWMO facilities, hear from subject matter specialists, and ask questions important to them. Many people we speak with highlight the importance of youth to the project and their roles as future decision-makers, employees or neighbours. They want participation in the site selection process to assist area youth to learn valuable skills, consider career opportunities in science and technology, and remain in the community if the area was selected for a repository. People of all generations were mindful of the responsibility of decisions taken today, and how these would impact their descendants and their livelihoods. More information about youth learning and engagement is available in the NWMO's annual Youth Report, available at nwmo.ca.

In addition to youth opportunities, we heard that communities wanted support for residents' participation in conferences and workshops about economic development, municipal planning, emergency response, and nuclear energy. We continue to hear about how support programs can be further evolved to help build capacity so that people can participate in learning, make informed decisions, and prepare themselves for the future.

In order to gain greater insight into how communities want to learn about the project, in 2019 we initiated community awareness surveys in five communities. Response to the survey was strong, and the independent research firm who led the study heard back from about a quarter of households surveyed. Awareness of the NWMO and site selection process was high: between 92 and 98 per cent of respondents in each community had heard of the NWMO, and 80-94 per cent of respondents were aware of the requirement that the project be implemented with the involvement of a willing host.

BUILDING CAPACITY AND AWARENESS
(continued)

Top sources of information to learn about the project were most commonly friends, family and neighbours, but also included newsletters, meetings, and social media. People also indicated the kinds of questions they would like addressed, and safety-related questions were most common. Other topics noted included environmental impacts, consequences or hazards, and the economics of the project such as jobs and community benefits.

The community survey process also served as a means to explore partnership through customized levels of community engagement and involvement. Some communities preferred an approach led by the independent research firm, while others preferred collaborative approaches, or even door-to-door delivery that paired NWMO staff with local volunteers.

More information about the community surveys is is available in summary reports on our website.

NWMO staff answer questions about APM at the Mildmay in Motion community festival in June 2019

EXPLORING THE POTENTIAL FOR PARTNERSHIP AND FOSTERING COMMUNITY WELL-BEING

BUILDING AND STRENGTHENING RELATIONSHIPS

Conversations in communities in the site selection process have intensified on the topic of who needs to be involved in an area in order for the project to proceed. Strong relationships between neighbours are required to co-ordinate planning and advance the project. In the remaining siting areas, municipalities first indicated an interest in learning about the APM project in their area, and now Indigenous communities in those regions find themselves integral to the siting process. We have heard a desire to better get to know Indigenous neighbours, and have facilitated these opportunities through our involvement in CLCs and regional engagement activities. People have requested NWMO advice on local protocol, holding local cultural awareness workshops, and how best to establish formal and informal lines of communication between communities and their Indigenous neighbours.

There also continues to be a keen interest in better understanding the Aboriginal rights laid out in Canadian law, especially Section 35 of the *Constitution Act* (1982), and how these must be respected. Similarly, people sometimes ask about or share knowledge about traditional land claims and about First Nation and Métis rights holders who live in and around siting areas.

Who needs to be involved in discussions also varies by community. In some areas, when "nearby" neighbours can be an hour away by car, in others, neighbours may be more close at hand.

As regional communities become involved and begin to learn about the project and the NWMO's activities, we are hearing common questions about the safety of the project, the fit of the project in the area, the nature of local benefits or risks that the project may entail, and also about their community's place in a collaboratively designed decision-making process for selecting a preferred site. Addressing these questions is an important focus of discussion, and critical to advancing the kinds of relationships the project will require to succeed.

BOREHOLE STUDIES AND LAND ACCCESS

The NWMO is continuing to advance plans for borehole drilling and additional studies in siting areas. Borehole drilling and studies support an understanding of the geological and physical conditions of the rock at a potential repository site. In the Ignace area, three boreholes have been drilled on Crown land, and engagement and consultation was completed on three additional boreholes and studies. In the Hornepayne and Manitouwadge areas, engagement continued on proposed borehole locations, additional studies and potential access roads.

In Ontario's southern siting area, the NWMO will have to access approximately 1,500 acres of private land in order to conduct these studies. This year we launched a land access program to seek out landowners willing to sign agreements giving us the right to conduct studies on their land.

The following summarizes what we are hearing as we engage with people on borehole drilling and land access.

BOREHOLE DRILLING AND ADDITIONAL STUDIES

During engagement in northern Ontario, people expressed interest in general aspects of the borehole drilling program and associated environmental, social, economic and cultural matters in relation to the borehole locations. For example, people asked: What is the purpose of borehole drilling? How deep will holes be drilled, and how many workers will be on site? Where will borehole samples be stored, and what will the NWMO do with the rock? Will borehole drilling have an impact on property values? Will it impact current activities on the land, and how will the environment be protected during these studies? What economic development or business opportunities will result from borehole drilling or if the repository is located in the area? Some people wanted to know more about the activities associated with Canada's plan, for instance, the distance the used nuclear fuel would be transported from current interim storage facilities, and how it would be monitored and secured during transport.

Expression of the importance of protecting fish and wildlife habitat and preventing any environmental contamination was common. Some people who use the land in proximity to proposed boreholes asked questions about how we would manage drilling activities so that these did not interfere with hunting, fishing and trapping activities. Some people expressed their preference to use existing roads or trails to access borehole locations, where possible, in order to minimize the disturbance that may result from accessing the borehole locations with new or improved access roads. In the Ignace area, cultural monitors from Wabigoon Lake Ojibway Nation were at drill sites to ensure land uses and culturally sensitive locations were protected.

BOREHOLE STUDIES AND LAND ACCESS

BOREHOLE DRILLING AND ADDITIONAL STUDIES
(continued)

People often asked for further information on the potential impacts to water quality in surrounding water bodies, and the safety and environmental protections required of drill operators contracted by the NWMO. At existing borehole drill sites, the use of water during drilling is well-known to many community members and water management measures were often discussed, including plans to truck water in to the site and trucking out waste water to licensed facilities. Some people were also interested in knowing more about the environmental monitoring being carried out by the borehole contractor.

In the Ignace area, where borehole drilling has been underway for two years, people had only a few comments to add given that the identified additional borehole locations are in relatively close proximity to locations for existing boreholes sites. Many people expressed interest regarding the borehole drilling results, and they were looking for an update on the status of the next in the series of boreholes.

Top: Students from South Bruce toured Ontario Power Generation's rock core storage facility to learn about samples from boreholes

Left: Borehole drilling core samples in storage in Ignace, Ontario

ACCESSING LAND

In the Huron-Kinloss and South Bruce siting areas, conversations largely revolved around the NWMO's newly launched land access process. Recognizing that aspects of these conversations are confidential, we capture here general insights from land-owners, and public comments we heard during the program roll-out.

People generally had a positive response to the program, and shared stories with us that emphasized the deep family and historical connections to the land. For example, some people told us that if the project goes ahead in the area, they would like to stay and farm their land for as long as possible. Some expressed their interest in acting as "hosts" for the project, remaining in the area to contribute to the local community and economy. Others expressed a notion that land access would allow them a change of lifestyle, and allow them to move and be near children who had moved out of the community.

A few landowners and residents have expressed concerns about the perception of the community's agricultural products in international markets, should their community eventually be selected as the site for a deep geological repository. As residents learn more about the APM safety case, and the work that will be required to demonstrate safety to regulatory authorities, they asked about water-flow around or beneath agricultural lands, and plans to protect people's health and the integrity of local environments.

Business owners view the interest in land as a positive contribution to future business operations in an expanded community. They expressed a general desire to know more about where land may be acquired, and how it might affect their agricultural or community-based businesses. Some business owners expressed concerns about our project competing for local labour, drawing from the same pool from which they employ workers.

Conversations about land access are still occurring, and will continue into 2020. Some people have thanked local staff for the collaborative way in which the program was rolled out, and the spread of news around the area has been a clear demonstration of the power of grassroots communication at the local level. Despite coverage of land access in local and national media, access to print journalism and the internet is uneven, so many people learned about the program through casual conversations with neighbours at local coffee shops, from friends and family, and at community events.

INDIGENOUS RELATIONS

We have heard time and again in our engagement with Indigenous people that the NWMO's intergenerational project poses a number of challenging questions, including the role of Indigenous people in decision-making about APM, and what can be learned from Indigenous knowledge. This section discusses the NWMO`s work towards reconciliation, and the ways we are learning through engagement with Indigenous people.

RECONCILIATION

In 2015, the Truth and Reconciliation Commission of Canada issued a report with 94 Calls to Action. Section 92 calls for the corporate sector to build respectful relationships with Indigenous peoples, and provide education for management and staff on the history of Indigenous peoples, including the history and legacy of residential schools.

In 2018, we took a significant step towards reconciliation by acknowledging historical wrongs in Canada's past and the need to create a better future by addressing the challenges of today. The NWMO's Reconciliation Statement reads as follows:

> "In the context of reconciliation, the Nuclear Waste Management Organization (NWMO) recognizes historical wrongs in Canada's past and the need to create a better future by addressing the challenges of today. The NWMO Council of Elders and Youth speaks of this journey as a new era for humanity - a time of reconciliation with First Nation, Métis and Inuit peoples."

Recognizing that actions were required to support our words, on October 17, 2019 the NWMO unveiled its new Reconciliation Policy at a Sunrise ceremony attended by members of the NWMO's Board of Directors, Council of Elders and Youth, and senior leadership. In that policy, the NWMO commits to respectful and meaningful engagement with Indigenous peoples and communities, providing cultural awareness and Reconciliation training to staff and contractors, and annually publishing a Reconciliation implementation plan.

The NWMO's acknowledgment and commitment to a new policy builds on a strong foundation of interweaving Indigenous Knowledge into decision-making. Since our inception, we have worked hard to listen and engage respectfully with Indigenous communities. We continually seek and receive advice from the Council of Elders and Youth, and records of their discussions are available on our website. In addition, all NWMO staff and contractors receive training in Indigenous cultural awareness, and important corporate occasions and milestones are celebrated through ceremony.

RECONCILIATION
(continued)

In 2019, our staff participated in Reconciliation workshops with the assistance of Reconciliation Canada. Workshops are modeled on an Indigenous circle process that creates a supportive and safe environment for meaningful dialogue and relationship building to occur. Together, participants explore pathways to reconciliation and develop reconciliation action plans. What we heard from staff is that everyone is at a different phase of the journey to reconciliation, so it is important that we create opportunities to learn and act in the spirit of reconciliation, both personally and professionally.

We have heard from Indigenous communities that they are happy that the NWMO is making a commitment to reconciliation, but are still working through their role in the process. People tell us that, from an Indigenous point of view, the onus is on non-Indigenous communities to reconcile relationships with their First Nation neighbours. Some First Nation communities tell us they struggle with the word "reconciliation" because it is often uttered but not always acted upon, so they have emphasized that the NWMO must be committed to action, not words.

From non-Indigenous people we work with, we hear that they are feeling encouraged by the NWMO's policy as we have created an avenue to advance reconciliation with their neighbours, however they have also indicated they still desire support in identifying and implementing next steps. Among our peers in the nuclear industry and corporate Canada, we have heard a lot of very positive feedback about the leadership role that that the NWMO has taken on reconciliation.

Some municipal and Indigenous leaders who work with the NWMO also contributed to a series of videos called Voices of Reconciliation. These videos allowed individuals to talk about the importance of starting the conversation, touching on concepts such as civic duty, understanding Canada's dark history with Indigenous peoples, and the need to create a better future together.

INDIGENOUS RELATIONS

INTERWEAVING INDIGENOUS KNOWLEDGE

Indigenous communities continue to highlight the importance of protecting the water, air, and land, as well as the need to make technical information as accessible as possible through collaboratively designed learning material, and creating opportunities to learn more. Many people want to learn how our project will safeguard water now, and in the future.

In 2018, the NWMO, together with communities, developed two new presentations – The Journey of Water and Teachings From Mother Earth – a series of cross-disciplinary presentations about water's role in the environment, and what it can tell us as part of our ongoing studies. The presentations show how a repository located deep underground is isolated from water sources near the surface and water bodies above ground. These presentations are also part of ongoing efforts to use traditional oral teachings and concepts to interweave Indigenous Knowledge and western science.

Responses to the presentations have been positive, and have identified new areas of inquiry, so in 2019, we advanced the presentation to focus on water's relationship with copper. Employing both western science and Indigenous Knowledge, and applying oral tradition in its delivery, this presentation was first delivered at the 2019 Wabigoon Lake Ojibway Nation's 3rd Annual Learning and Sharing Gathering, held on July 17-18, 2019. The water presentations are well-received based on utilizing story-telling and creating opportunities for meaningful dialogue.

Also in 2019, we produced a series of videos about water, and published a story about Indigenous water symbolism on our website, and continued to reach out to Indigenous peoples to gather their views and questions on water and other subjects, with a view to protecting people and the environment.

In 2019, we held a second annual Indigenous Knowledge and Western Science workshop, the objective of which was to explore new opportunities for Indigenous knowledge holders and western scientists to work together and inform the NWMO's research programs around the long-term performance of the multi-barrier system. Last year's workshop identified a knowledge gap in western scientists' understanding of Indigenous Knowledge, so the 2019 workshop focused on bridging the gap through additional learning. The presenters were Indigenous Knowledge holders talking about their worldview, teachings about water, and the agency of mother earth. It also interweaved ceremony, and other aspects of Indigenous Knowledge.

TRANSPORTATION

The communities involved in the site selection process are keen to explore the safety and security of the transportation, and through these conversations, the NWMO is hearing about the values, objectives and processes needed to guide planning. Although the transportation of used nuclear fuel to a repository site is not expected to begin before 2040, it is a common and important topic of conversation with communities and their regional neighbours. Since 2014, the NWMO has published an annual summary of the ongoing conversations with communities about transportation. What follows is a summary of the very broad, detailed conversations about transporting used nuclear fuel.

The safe and secure transportation of used nuclear fuel is an important component of Canada's plan

TRANSPORTATION

TRANSPORTATION THEMES, 2014-2019

To date, the NWMO has engaged thousands of Canadians to hear their comments, questions and concerns, and to provide information on transportation topics. Learning about transportation safety is occurring with a broader audience as the overall engagement program expands to include neighbouring communities in the siting areas, Métis and First Nation organizations, and regional first responder and road service groups.

In 2019, activities designed to share information and engage in discussion on the basis of confidence in safety continued as part of a multi-faceted engagement program. Information exchange on transportation safety was promoted through the use of standing exhibits in community offices; a multi-module travelling exhibit used at open house events, conferences and trade shows; presentations by transportation specialists and other staff; and the launching of a mobile exhibit with a transportation section. A 3D model of the Used Fuel Transportation Package was featured at a variety of events throughout the year (both as part of the multi-module and mobile exhibit). Videos demonstrating how used fuel transportation packages have been tested to withstand various accident scenarios were available, and often shown at events. The NWMO's demonstration and prooftesting facility in Oakville, Ontario also features transportation material and activities, and is a popular tour destination for communities and other groups.

Interactive kiosks, feature videos, brochures, backgrounders, and other materials were used extensively in siting areas, and in Métis, First Nation, and municipal community events in which the NWMO participated. In addition, formal presentations were made to local municipal CLC, Métis and First Nation communities, and at the 4th Nuclear Waste Management, Decommissioning and Environmental Restoration (NWMDER) Conference. Staff also attended dozens of community and organization events with Métis and First Nation communities and organizations. Through all of these activities, the NWMO provided answers to questions and engaged in conversation to advance our understanding of people's perspectives of transportation planning.

As a complement to ongoing engagement, public attitude research and Métis and First Nation dialogue sessions were conducted to further understand principles, values and objectives to ground future transportation planning.

TRANSPORTATION THEMES, 2014-2019 *(continued)*

Across all these conversations, common interests, questions and concerns are emerging. People are telling us that:

- Safety of people, including workers, people transporting the used fuel and people along the route needs to be a primary consideration.
- We need to have strong security plans and procedures in place to make sure shipments are not threatened by terrorism or theft.
- Emergency response plans need to be developed and in place in the case of emergencies along transportation routes. First responders and other emergency response personnel need to be equipped and supported.
- We should use the best science available when making decisions about transportation planning. The plan also needs to be informed by local and Indigenous Knowledge.
- We need to consider, and minimize or eliminate, the impacts of transportation on the environment, including drinking water, watersheds and other environmentally sensitive areas.
- The transportation program needs to consider carbon footprint.
- Taxpayers or future generations should not be responsible for project costs. Costs associated with the transportation of used nuclear fuel needs to be fully covered by waste producers.
- Independent oversight is important and, as part of that, jurisdictional roles, responsibilities and authorities must be clearly defined and understood.
- Transparent decision-making about transportation is important. Information used to make decisions about transportation planning must be readily available to the public.
- Education, communication and engagement are fundamental to overcoming fears and misconceptions about nuclear energy and the transportation of used nuclear fuel. Fears and misconceptions should not stand in the way of implementing the project and the greater public good. People also have a responsibility to learn about the project.
- Transportation planning must be able to respond to changes, including changes in technology, climate and regulations.

These can be broadly grouped into the following eight themes: Health, Safety and Security; Emergency Response; Transportation as component of Canada's Plan; The Role of Transportation in Site Selection; Informing People and Building Confidence; Environment; Greenhouse Gas Emissions and Climate Change; and Planning for the Future. Understanding and addressing these interests and concerns will help chart a path to collaboratively planning and implementing a safe and socially acceptable transportation plan.

SOCIAL MEDIA AND ONLINE CONVERSATIONS

In 2019, the NWMO continued to hear from citizens via our website and email, as well as through social media using Facebook, LinkedIn, Instagram and YouTube. This year saw the launch of NWMO on Twitter, which as of October 2019 had over 1,000 followers. Throughout 2019, the NWMO has steadily increased its social media presence, resulting in increased online engagement – clicks, likes, comments, and shares.

Generally, engagement with NWMO social media channels continues to be neutral to positive, demonstrating friendly reaction to fact-based content ("Did you know, copper resists corrosion, adding another layer of protection as part of the multi-barrier system?"). Content of this kind, designed to demystify Canada's plan for the safe, long-term management of used nuclear fuel, has become a primary conversation starter within the NWMO's social media channels. In 2019, the NWMO's social media audience also demonstrated a strong interest in Indigenous-related content, particularly the #VoicesOfReconciliation video series shared across the organization's social networks, focusing on the NWMO's Reconciliation journey.

The types of questions and comments we hear via third-party posts (content not published by the NWMO) are at times rooted in misunderstandings or misinformation (i.e used nuclear fuel is a liquid, or that a repository would be sited underneath the Great Lakes). On content published by the NWMO, there remains a desire for expert verification of the NWMO's work; in the majority of cases, our audience responds positively to addressing common concerns with facts (i.e. "Did you know the planned deep geological repository will be as deep as the CN tower is high?").

The NWMO's social media audience also continued to engage around community-based content in 2019, which often showcased the organization's involvement in local communities via sponsorships and donations. Additionally, content in the form of quizzes or polls proved of interest for the organization's online community, providing an opportunity to learn about adaptive phased management through quick, real-world examples (i.e. "What are the household uses of bentonite?").

Outside the NWMO-run social media channels, we still observe many online discussion groups based around specific siting areas, some critical of our work or presence in their community. While targeted oppositional posts are a minority of the online discussions we observe, we continue to monitor all kinds of public discussions for emerging topics and themes, and to hear about issues and questions that are being expressed by some people in the area. So far, the concerns and issues we see expressed in these local forums are reflective of the broad themes discussed throughout this report, and mirror the learning process seen in our face-to-face conversations with people in siting areas.

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IMPLEMENTATION PLAN 2019-23

In March 2019, the NWMO published Implementing Adaptive Phased Management 2019 to 2023. The document outlined Canada's approach for the safe, long-term management of the country's used nuclear fuel, and how the NWMO intends to proceed over that time period.

To encourage public review and comment, the plan was distributed by mail and email to more than 3,800 people and organizations that had expressed interest in the APM project. It was also used by our staff and contractors as a discussion point in communities, at events, and with people involved in the siting process. To increase reach, we also posted it on our website (www.nwmo.ca) and on our social media platforms, with an invitation to comment by making a submission, sending a letter or email, or filling out the comment form.

We received responses from a range of people – some representing government agencies or businesses, and others as individuals. This input helps inform our plans and work activity. We have used the comments we received to help inform the updated plan.

Several themes emerged from the suggestions and comments received – below is a summary of what we heard about the Implementation Plan 2019 to 2023.

Continuing local engagement and communicating clearly

A number of respondents commented on the strength of the NWMO's ongoing engagement program and plans going forward. It was acknowledged that a project of this size and with such long timeframes will have a significant impact wherever it is implemented, and therefore, both local involvement and clear, honest communication about the project and its potential effects are particularly important.

Some commenters shared specific suggestions for improving communications materials. In response, we have enhanced labels on diagrams included in this year's plan, as well as other NWMO publications. To further help people visualize what a repository and associated facilities might look like, we introduced a three-dimensional conceptual model as part of a travelling exhibit launched in 2019.

We were also asked why the NWMO often notes in our communications materials the optional step of temporary shallow underground storage of used nuclear fuel, even though it is not expected to be required. Shallow storage is not currently being considered for implementation, as the used fuel is safely stored on an interim basis at facilities that are expected to operate until the deep geological repository is available for long-term management. In the interest of transparency, we continue to note it as an option should future needs change.

Increasing public awareness about the project and transportation planning

Commenters encouraged us to expand communications and engagement about the overall project and transportation planning specifically in areas beyond potential siting communities. This includes the broader regions in which these communities are located, along potential transportation routes and in current nuclear host communities where interim storage facilities are located.

We continue to expand our outreach beyond siting areas through regional engagement, as well as media and social media campaigns, and we also are continuing to extend our engagement efforts to include communities and groups that may be affected by or have expressed an interest in transportation. Future Implementation Plans will include information about the planning and engagement process for developing a draft transportation planning framework that will be the focus of further discussion in 2020.

Adapting to technical developments

Several commenters noted that the NWMO needs to be prepared to adapt to new developments. It was noted that last year's plan acknowledged Canada's active research sector exploring new technologies such as SMRs, fuel reprocessing and other types of advanced reactors. We continue to encourage organizations developing new concepts to work with us so we can determine potential impacts to repository designs. We also actively monitor and report on new technical developments and maintain a watching brief on alternative technologies, updating it annually (www.nwmo.ca/adaption).

Several commenters asked why Canada's plan is to contain and isolate used nuclear fuel in a deep geological repository, rather than recycling it. If Canada chooses to reprocess nuclear fuel in the future, it would be a joint decision by nuclear energy producers, the associated provincial governments and the federal government. If such a decision was taken, the NWMO would work with utilities and government to safely manage the high-level fuel waste resulting from this process. This approach is aligned with international best practice – countries that reprocess used nuclear fuel and others that are examining advanced fuel cycles all have plans to implement deep geological repositories.

Managing risks related to site selection

We received a number of comments about risks associated with selecting a site and implementing Canada's plan, including concerns that we may not be successful in finding a site, delays could occur, or institutional arrangements for regulation and ownership of generation and storage facilities could change.

While we remain adaptable, we are ultimately planning for success – in each potential siting area, geoscientific and environmental evaluation studies to date have given us confidence that we can build and operate a deep geological repository for used nuclear fuel.

We also have an active process in place for managing risks. This process involves identifying events that may affect the NWMO or our work, assessing their likelihood, implementing mitigation strategies, and managing resulting risks to ensure we can achieve our mandate.

With respect to changes in regulations and ownership of used nuclear fuel, these are among the factors we monitor on an ongoing basis to ensure we are able to adapt if needed. For example, this year's Implementation Plan 2020 to 2024 demonstrates how we have adapted to the Impact Assessment Act, which was passed in 2019.

CONTINUING DIALOGUE

In 2019, we heard from and engaged a broad range of interested communities, First Nation and Métis communities, individuals, and organizations as we worked collaboratively to advance the implementation of Canada's plan.

The NWMO has observed that as conversations continue, and more communities, individuals and groups become involved, there is substantial agreement on the themes and questions that need to guide and be addressed in implementing Canada's plan. We also understand that as we advance to identify borehole sites and potential repository locations, conversations, questions and concerns will become more focused and personal. Special care and respect will be needed to collaboratively advance this work.

The NWMO continues to invite comments and suggestions about our work programs and plans, and thanks the communities, individuals and organizations that continue to lend their thinking to ensuring the long-term containment and isolation of Canada's used nuclear fuel today and for generations to come.

APPENDIX: ONGOING AREAS OF INTEREST

The following is a rolling list of frequently asked questions and topics we have encountered during site selection work.

Exploring safety together

- For how long will this radioactive material be dangerous?
- How can you know if it will be safe over millions of years?
- How much radiation would this facility emit in a year?
- Will this affect groundwater and nearby waterways like rivers, lakes and the Great Lakes?
- How will the environment be protected?
- Would the driver of a transport vehicle with an NWMO package be safe? What would their dose level be?
- What is a deep geological repository, and how will it isolate used nuclear fuel from people and the environment?
- How will the environment be protected when the repository is under construction?
- How will the environment, and specifically water, be protected during technical studies when you are drilling boreholes?
- What are the safety measures at surface facilities, and how will these facilities use water, treat waste and safely manage radioactive sources?
- What are the environmental impacts of the rock pile that will be created during the deep geological repository construction?
- How will an emplacement room in the deep geological repository be filled, and will robots be used?
- Will there be a monitoring system placed underground?
- How is the NWMO technically demonstrating safety of the project?
- Is the NWMO considering disruptive events such as forest fires, flooding and extreme weather?
- Does the NWMO take into consideration the possibility of earthquakes?
- Can land on top of the repository be farmed?

Adaptive Phased Management and the site selection process

- What is used nuclear fuel?
- How much nuclear fuel exists, and how is it being managed now? How much used fuel will there be by the time the repository is operating?
- Who owns the NWMO? Who do you report to? How are you regulated?
- How was APM developed? Who approved it? Do Canadians support it?
- How much will this project cost, and who are the used fuel owners that are paying for it? Is inflation included in cost projections?
- How long will it take to find a site? How long will it take to construct, and for how long will the repository operate?
- What government approvals will be required to build and operate the site?
- Will the selection of a preferred site for the repository trigger a federal and/or provincial impact assessment?
- Has the NWMO considered energy and water "footprints" in its planning?
- How many communities are involved in the site selection process?
- What is the nature of the NWMO's work in the area?
- How many people have attended NWMO learning events? How many of my neighbours are coming out to meetings?
- Do you have a local office where I can learn more about the project?
- What kind of site and/or rock is the NWMO looking for?
- How are other countries managing their used nuclear fuel?
- What criteria are being used for narrowing down the siting areas?
- Where will surface facilities be located – nearby or in the region?
- Where will workers live during the 10-year construction period?
- What can be done with the acreage that will not be taken up by APM surface facilities?
- Are you talking to neighbouring communities, and local First Nation and Métis communities?
- What is our community's role in the site selection process? What do you need from us?
- What is the CLC, and when does it meet? Can I attend its meetings?
- What types of used nuclear fuel will be managed by the project, and will used nuclear fuel from other countries be accepted by the deep geological repository?
- How does the NWMO plan to address used fuel from SMRs?
- First Nation/Métis "willing hosts"? What does that mean?
- Land use claims, how does that enter into the discussion? Do all the First Nation/Métis communities that have land claims in the area have to agree to be "willing hosts" even though these land claims have not yet been settled?
- What determines who is in and who is not in?
- Where or how does the provincial/federal First Nation/Métis governing groups enter into the picture? Do or can they override the decisions of the local First Nation/Métis communities? Do they also have to be "willing hosts"?
- What is the NWMO doing with respect to reconciliation with Indigenous peoples?
- How can non-Indigenous communities be involved in reconciliation?

Exploring the potential for partnership and fostering community well-being

- What are the local and/or regional benefits of hosting? Will there be local jobs or infrastructure?
- How do I get involved in my community's decision-making process? Is there a local committee?
- How does the rock look here in the region? Is it suitable to site a repository?
- Have you talked to [my neighbour] about this project yet? I think they would be interested to know.
- What happens if local circumstances change? Can we opt out of the process?
- How much land is required locally to build the repository and facilities? Is there enough in my community?
- Will you be looking at Crown land?
- How can we prepare people in the community and area to participate in the project, develop skills and more?
- How will the NWMO ensure that the community and people in the area benefit?
- How can we begin to plan for jobs and longer-term economic development?
- What are the opportunities for businesses and employment associated with site selection?
- How are youth being engaged, and how can we retain youth in our communities?
- What learning resources are available to students and youth?
- When will we begin to see economic activity and jobs in the area?
- What kind of training is available in the near future to build the kind of human resource capacity needed to accommodate this project?
- What resources are available to communities now in order to help build understanding of the project locally and with our neighbours?
- Are there economic opportunities related to the rock that is extracted from the repository?
- Who will be involved in partnership discussions? Local municipalities? Indigenous communities?
- Who needs to be supportive of the project in our area in order for it to proceed?
- How can I help build this partnership?
- What resources are available to learn more about partnership, and what partnership would mean for our community?
- How will willingness and support be gauged? Will there be a referendum?
- Can a few people in an area who are opposed to the project prevent the project from proceeding in the area?
- How can we help to get more people involved?

Building relationships

- What is the protocol for reaching out to the First Nation community in my area?
- What are Aboriginal rights, and how must they be respected?
- Who has rights, and who has traditional territory in the area?
- How can we understand and be respectful of cultural differences and decision-making processes?
- How can our community group take part in workshops to learn more, and contribute to reconciliation?

Building capacity

- How can we engage more community members in learning?
- How can we get more community members attending CLC meetings?
- How can we take the learning out to community groups?
- How do we build community capacity in planning and economic development sufficient to support reflection on this project and preparing for its implementation? What other expertise and studies will we need?
- What opportunities are there for this project to contribute to well-being during participation in the siting process?
- What skills will local people need in order to work at the facility? Can the NWMO help support certification and training for residents?
- Can the NWMO help support skills and education in STEAM disciplines for young people in the community?
- Will the Centre of Expertise also house a training facility?

Borehole studies & land access

- How will siting the boreholes in this location affect my use of the land?
- How will siting the boreholes in this location affect my property values?
- How will siting the boreholes on Crown land affect my Aboriginal and treaty rights?
- How will you address impacts to my business or property while you conduct borehole tests?
- How will siting the boreholes in this location affect surface water, animals and plants?
- How will siting the boreholes in this location advance the well-being of the community and area?
- How will findings from the studies be shared with the communities?
- Do all siting areas have the same rock features? What are some of the differences?
- How much land will be cleared for borehole drilling? What is the environmental impact of the boreholes?
- When you are building borehole access roads, how many water crossings are required?
- How many boreholes will be drilled at an identified location? When will subsequent borehole drilling operations be carried out?
- Will there be environmental monitoring the borehole drilling sites during operations?
- What is the NWMO doing with the borehole samples? Where are they being stored?
- How does the NWMO borehole drilling compare to those carried out by mining companies?

Indigenous Relations

- How will the NWMO address the United Nations Declaration on the Rights of Indigenous Peoples in the management of hazardous materials in Indigenous traditional territories?
- How can we learn about how to keep our water safe by better understanding the water cycle/the journey of water?
- What considerations are we giving to cultural sites in the selection of potential areas for drilling?
- How can we learn more about Indigenous culture?
- What are some examples of how the NWMO is interweaving Indigenous Knowledge throughout the APM project?
- How are Indigenous communities involved in borehole drilling activities?
- First Nation/Métis “willing hosts”? What does that mean?
- Land use claims, how does that enter into the discussion? Do all the First Nation/Métis communities that have land claims in the area have to agree to be “willing hosts” even though these land claims have not yet been settled?
- What determines who is involved and who is not in?
- Where or how does the provincial/federal First Nation/Métis governing groups enter into the picture? Do or can they override the decisions of the local First Nation/Métis communities? Do they also have to be “willing hosts”?
- Can my group/community participate in indigenous cultural awareness workshops?
- What is the NWMO doing with respect to reconciliation with Indigenous peoples?
- How can non-Indigenous communities be involved in reconciliation?

Transportation

- What transportation route will you be using to get the used nuclear fuel from interim storage facilities to the repository site?
- Is this material safe to transport? What if an accident happens while on the way?
- What would emergency response planning and training protocols look like? Will my community require an evacuation plan?
- How will emergency response workers stay safe in the unlikely event of an accident?
- What modes can you use to transport used nuclear fuel? Road or rail? Is water being considered?
- Will new or upgraded transportation infrastructure be required to transport used nuclear fuel? Who will pay for it?
- Will your drivers be transporting the used nuclear fuel even in the harsh, northern winter conditions?
- Will you be tracking the transportation canisters?
- Will the used nuclear fuel transportation packages emit radiation while being transported to the repository site?
- Will the NWMO respect Indigenous jurisdiction with respect to transportation?
- How does transportation of highly enriched uranium by another organization differ from that of the CANDU fuel by the NWMO?
- In selecting a particular site that could eventually host the repository, does the NWMO consider proximity to rail and road?
- When will you begin considering local transportation routes? Will dedicated highways or rail spurs be constructed?
- What happens if an unauthorized individual really intended on opening the Used Fuel Transportation Package (UFTP)? Can the package be opened?
- What happens if a UFTP falls into a body of water?
- What is the assumed speed of the truck transporting the UFTP?

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NUCLEAR WASTE MANAGEMENT ORGANIZATION

SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES