

Steps in the Process



Description of Steps

Getting Ready

The NWMO publishes the finalized siting process, having provided information and opportunities to brief provincial governments, the Government of Canada, national and provincial Aboriginal organizations, and regulatory agencies on the NWMO's activities.

In preparation to begin the siting process, the NWMO will engage in the following activities and will continue with these activities throughout the site selection process and in parallel with subsequent steps:

- Publish the finalized Process for Selecting a Site document which takes into account the suggestions and advice received over the course of the public dialogue. The NWMO will review this process periodically with Canadians throughout the implementation of the siting process to ensure it continues to meet needs and expectations.
- Create a dedicated website to describe activities related to the siting process and post information on progress throughout the process.
- Provide information and opportunities to brief provincial governments and the Government of Canada on the NWMO's activities.
- Provide information and opportunities to brief national and provincial Aboriginal organizations on the NWMO's activities.
- » Brief the Canadian Nuclear Safety Commission (CNSC) and other federal and provincial regulatory agencies on the process design, including the approach to site assessment and engagement of citizens. Briefings will be designed to help anticipate the requirements of the licensing processes, including requirements for an environmental assessment, even as new information and requirements may emerge over time.

Step 1

The NWMO initiates the siting process with a broad program to provide information, answer questions and build awareness among Canadians about the project and the siting process.

The NWMO initiates the siting process with a program of information mailings, briefings and activities designed to help build awareness and understanding of the NWMO, the project, steps in the siting process and the criteria to assess suitability of potential host communities.

The NWMO will ensure opportunities to learn more and will both seek opportunities to provide information and respond to requests for information. It will focus its outreach activities on nuclear provinces, including municipalities, the broad public, interested individuals and organizations, and First Nations, Métis and Inuit who have expressed interest in learning more. The information shared in the outreach program will be posted on the NWMO website for broad public access and review.

Activity of this nature is expected to continue throughout the site selection process and in parallel with subsequent steps.

Communities identify their interest in learning more, and the NWMO provides detailed briefing. An initial screening is conducted.

- A. A community expresses interest in learning more about the process.
 - A community expresses interest in learning more about the project and steps in the process with a request to the NWMO. For the purpose of expressing interest, "community" is defined as a political entity such as a city, town, village, municipality, region or other municipal structure, Aboriginal government or a combination of these. The request must be made by accountable authorities (for example, elected representative bodies). This may involve existing municipal council of a community, Aboriginal government, the community establishing a new group involving community leaders, or other group as deemed appropriate by the community for learning more about the project.
- B. The NWMO evaluates potential suitability of the community against a list of initial screening criteria (outlined on page 30). Initial screening of the potential suitability of the community based on readily available information and a short list of initial screening criteria will be completed over a **period of 2 to 3 months**. Unless all initial screening criteria can be met at this early point, the community will be excluded from further consideration. Third-party review (described on page 42) is optional, to be initiated upon request of the community.
- C. The NWMO provides a detailed briefing to community.
 - The NWMO provides a detailed briefing, or series of briefings, about the project and the steps in the process to accountable authorities in communities that are interested and not excluded by the initial screening.
- D. Communities with potentially suitable sites assess whether they are interested in continuing to preliminary assessment.

Support to community beginning with this step: Should initial screening suggest the community has potential to be suitable for the project and beginning with this step, the community may request and receive resources (funding and information, if desired) from the NWMO for: 1) seeking independent expert advice concerning the project and/or the results of the various site screening and site evaluation stages; 2) augmenting or developing a long-term vision for sustainability; and 3) conducting activities to inform residents and assess interest in the project in the community.

The nature of resources provided will be outlined in a memorandum of understanding between the community and the NWMO.

For communities that continue to be interested, a preliminary assessment of potential suitability is conducted.

- A. The community informs the NWMO of its interest in a preliminary assessment of its potential suitability.

 A community, through its accountable authorities, contacts the NWMO to request preliminary information (in the form of a feasibility study) about whether a geographic area or specific sites in the community have the potential to meet the more detailed requirements for the project. No commitment from the community to participate in the project beyond conduct of the preliminary assessment (feasibility studies) is required. For communities uninterested in proceeding, their involvement in the siting process ceases.
- B. The NWMO conducts feasibility studies in collaboration with the community to assess whether the community contains potentially suitable sites.

The NWMO and accountable authorities from the community develop a memorandum of understanding outlining the scope of work, the means by which the NWMO and the community will work together throughout the feasibility studies, the approach to and terms of reference for the third-party review process (described on page 42), the way that citizens will be engaged, and the nature of the funding provided by the NWMO to the community to support the process.

The NWMO, working with the community, will conduct feasibility studies, using pre-established geoscientific and community well-being related criteria, as outlined in Section 6, over a period of **approximately 1 to 2 years** depending on availability of existing information.

The NWMO will provide resources to the community to support the exploration of its interest. The NWMO will publish on its website the results of the feasibility studies, the results of the third-party review and its conclusions on the extent to which sites within the proposed areas are considered suitable should the community decide to proceed to the next step in the process.

C. Communities with potentially suitable sites assess whether they are interested in continuing to detailed site evaluation.
Communities with potentially suitable sites assess whether they are interested in continuing to detailed site evaluation.

Support to communities beginning with this step: The NWMO will encourage interested communities to inform and involve surrounding communities, the region and potentially affected Aboriginal communities and governments as early as possible in conversations about the potential suitability of the community and the site, and interest in hosting the project to help ensure that their issues and concerns are addressed. This engagement will continue throughout the siting process. Beginning with this step, the community (accountable authorities) may request and receive resources (funding and information, as desired) from the NWMO for: 1) establishing a community office for the project; and, 2) conducting activities to inform residents and assess interest in surrounding areas, including First Nations, Métis and Inuit as appropriate.

Beginning with this step, the NWMO will also begin to make funding available to accountable authorities in potentially affected surrounding areas, including First Nations, Métis and Inuit, as appropriate, to support their participation.

The nature of funding provided will be outlined in a memorandum of understanding between the community(ies) involved at this stage and the NWMO.

For communities that continue to be interested, potentially affected surrounding communities are engaged if they have not been already, and detailed site evaluations are completed.

- A. Communities with potentially suitable sites inform the NWMO of their interest in continuing to detailed site evaluation.

 Communities with potentially suitable sites, as represented by accountable authorities, express formal interest in being considered for the project and request detailed evaluation of their suitability. For potentially suitable communities not interested in proceeding, involvement in the siting process ceases.
- B. The NWMO selects one or more suitable sites from communities expressing formal interest for regional study and/or detailed site evaluations.
 - At a point to be determined during the siting process, the NWMO will announce the closing of the formal expression of interest phase, ensuring a minimum of six months notice in advance of the closing date. The NWMO will then select one or more sites from communities that have expressed formal interest, using the criteria identified in Section 6 as the basis for a decision-making process that will be developed with the participation of the communities involved. Results of this process will be shared with the communities and then published on the NWMO website.
- C. Several activities will take place in the course of completing this step if not already initiated earlier. These activities may be undertaken in parallel or sequentially.
- The NWMO and the community engage surrounding communities, potentially affected municipal and/or Aboriginal governments, and the provincial government in a study of environmental, social, economic and cultural effects of the project at the broader regional level (Regional Study).
 - At this point in the process, the NWMO will work with the community to engage potentially affected surrounding communities, regions and jurisdictional levels, and the provincial government, if not already involved, in discussions concerning the potential environmental, social, economic and cultural effects at the broader regional level associated with locating the project. This would include effects that may be associated with transportation and potential transportation modes and routes. The NWMO will identify preferred transportation modes and potential routes and will welcome communities along the transportation route as a large group with a shared interest to raise questions or concerns to be addressed in the process. A report will be produced and published on the NWMO website should the community decide to proceed to the next step in the process.
- The NWMO conducts multi-year detailed site evaluations in collaboration with the community to further assess and, if appropriate, confirm the suitability of sites.
 - The NWMO and accountable authorities will develop a memorandum of understanding outlining the scope of work, the means by which the NWMO and community will work together throughout the detailed site evaluation, the approach to and terms of reference for the third-party review process (described on page 42), the way that citizens will be engaged, and the nature of the funding provided by the NWMO to the community to support the process. The NWMO will conduct detailed field investigations involving geophysical surveys, characterization of the existing environment, drilling and sampling of boreholes, field and laboratory testing and monitoring activities over a **5-year period** at the site. The NWMO will also conduct studies to identify and assess the potential environmental, social, economic and cultural effects associated with implementing the project in the community. The NWMO will publish on its website the results of the detailed investigations and its conclusions on the extent to which proposed sites are suitable should the community decide to proceed to the next step in the process.

» A centre of expertise is established at or near the potential site.

A centre of expertise will be established in each community with a site under consideration, or nearby as determined with the community, to support the multi-year testing and assessment of the site on technical safety and community well-being dimensions. It will be home for an active technical and social research and technology demonstration program involving researchers and other experts in a wide variety of disciplines including geoscience, engineering, and environmental, social, economic and cultural impact assessment. The centre of expertise will also be a focus for engaging members of the community to learn more about the project, and to view the scientific and engineering work involved in site assessment in progress through public viewing galleries and interactive displays. As determined with the community, the centre of expertise could be designed to include a small science centre focused on the design, construction and implementation of a deep geological repository and the wide variety of related activities, a meeting place and learning centre for the community, and a destination for interested visitors from the region and beyond.

D. Communities with confirmed suitable sites assess whether they are willing to accept the project. Communities with confirmed suitable candidate sites assess whether they are willing to accept the project, including engaging the community to assess and demonstrate this willingness.

Support to communities beginning with this step: Beginning with this step, the NWMO will make funding available to communities along the transportation route as a large group with a shared interest to seek independent advice to assist them in formulating questions or concerns to be addressed in the process.

The nature of funding provided will be outlined in a memorandum of understanding between the community(ies) involved at this stage and the NWMO.

Step 5

Communities with confirmed suitable sites decide whether they are willing to accept the project and propose the terms and conditions on which they would have the project proceed.

A. Communities with confirmed suitable sites express willingness to accept the project.

The NWMO requires formal expression of interest from an accountable decision-making body, supported by a compelling demonstration of willingness among those living in the local area. Communities that are unwilling or cannot demonstrate willingness in a compelling manner will cease involvement in the siting process.

B. The community develops and proposes to the NWMO the terms and conditions on which they would have the project proceed.

This may include the means by which the NWMO and community will work together through the regulatory approval process and through the implementation of the project; the need for and nature of provision of resources for technical review and other assistance; the need for and nature of any decision-making and/or advisory bodies to support the process; mechanism to be used for dispute resolution; approach to ensuring the long-term sustainability and well-being of the community through the project, outlining specific inclusions; and approach to managing impacts associated with the project.

The NWMO and the community with the preferred site enter into a formal agreement to host the project.

A. The NWMO selects preferred site.

The preferred site will be one that can be demonstrated to be able to safely contain and isolate used nuclear fuel, protecting humans and the environment over the very long term. Locating the facility at the preferred site will also help foster the well-being of the local community. The preferred site will be selected using the criteria outlined in Section 6, aided by a decision-making process that will be developed with the participation of communities involved.

B. The NWMO and community ratify formal agreement to host the project.

The accountable decision-making body enters into a formal agreement with the NWMO as to the conditions under which the project will proceed, subject to all regulatory requirements being met and regulatory approval received.

C. Representatives nominated by local and regional governments and Aboriginal organizations that are affected are appointed to the NWMO Advisory Council.

Step 7

Regulatory authorities review the results of the assessment of the site and the safety of the project through an independent, formal and public process and, if all requirements are satisfied, give their approvals to proceed.

Prior to construction, the NWMO will have to demonstrate that the project meets or exceeds strict regulatory criteria to protect the health, safety and security of Canadians as well as the environment, respecting Canada's international commitments on the peaceful use of nuclear energy. The requirements set by regulatory authorities for this project will have been included in the criteria used to assess the suitability of potential sites from the inception of the siting process. The documentation produced in addressing earlier steps in the siting process, as well as other documentation that will be required, will be the foundation of the regulatory review. The project will proceed only after all regulatory approvals are obtained.

The regulatory process may evolve over time. It currently includes the following components in assessing the safety and acceptability of the project. Every step offers the public an opportunity to participate:

- The implementation of the deep geological repository will be regulated under the Nuclear Safety and Control Act and its associated regulations. The project will be subject to the Canadian Nuclear Safety Commission's (CNSC) comprehensive licensing system which covers the entire lifetime of the deep geological repository from site preparation through construction, operation and decommissioning. This step-wise approach will require a licence for each phase of the project.
- Once a site has been selected as the preferred site, as a first step, the NWMO will submit to the CNSC an application for a licence to prepare the site, or both prepare the site and construct.

- » A licensing decision by the CNSC can only be taken after the successful completion of the environmental assessment process. The environmental assessment, involving public hearings, would be conducted under the Canadian Environmental Assessment Act to ensure the project will not cause significant adverse environmental effects over the life of the project.
- Upon successful issuance of a licence, the regulator will oversee the project through site inspections and audits to verify regulatory compliance.
- Once the facility is constructed, the NWMO will need to submit an application for an operating licence to the CNSC, involving a public hearing.
- >> Various aspects of the transportation of used nuclear fuel will also need to be approved by regulatory authorities.

Construction and operation of an underground demonstration facility proceeds.

With the granting of a construction licence, the NWMO will begin implementing the project, starting with construction and operation of an underground demonstration facility designed to confirm the characteristics of the site before beginning construction of the deep geological repository. The NWMO will develop the centre of expertise to include and support the construction and operation of the underground demonstration facility. As has been the case for deep geological repositories for nuclear waste constructed in other countries, it will become a hub for knowledge-sharing across Canada and internationally. The design details of the centre of expertise will be developed with the community and the surrounding region with their preferences in mind.

Step 9

Construction and operation of the facility begins.

The NWMO begins construction of the deep geological repository and associated surface facilities, followed by operation after an operating licence is obtained. The NWMO will continue to work in partnership with the host community in order to ensure the needs of the community and the terms of the agreement continue to be met throughout the entire period of construction, operation and closure of the facility.