NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

OCTOBER 2016

PRELIMINARY ASSESSMENT OF POTENTIAL SUITABILITY

Environmental Characterization Studies

Safety is the first consideration in finding a site for a deep geological repository for Canada's used nuclear fuel. Considering the environment is an important part of ensuring safety.

Environmental characterization is conducted at an early phase of preliminary assessment to help begin to build an understanding of the general ecology of an area. It is the first phase of a stream of studies that will become more detailed and focused as preliminary assessments, involving geoscientific and other safety related technical studies, continue.

For any site that is ultimately selected for the repository, the NWMO will need to demonstrate to those in the area and regulatory authorities that environmental considerations have been fully addressed.









How will the information about the environmental characterization work be used?

The information collected through these technical studies will be used to help verify information from desktop studies and increase our understanding of local ecology, including important information about plants and animals.

These environmental characterization studies are one input to understanding the ecology of an area. The NWMO seeks to learn from First Nation and Métis communities, Indigenous Knowledge holders and others in the area to build a shared understanding about the land. In conducting these studies, the NWMO will work with people in the area to plan the mapping activities and review findings.

How will the environmental characterization work be conducted?

Teams of two or three specialists will walk, use ATVs and/or use watercraft to observe land characteristics. The work is non-obtrusive, which means this observation phase is limited to what can be seen on the surface. This work includes making notes and taking pictures about the size and types of streams, the types of local plants and animals, and fragmentation of existing forest. Small samples of soil or plant life may be taken for further characterization and study.

What if the areas under observation are found to be potentially suitable for the project?

If the range of technical and socio-economic studies underway show that an area has strong potential to be suitable for hosting a deep geological repository for used nuclear fuel, people in the vicinity would be engaged in discussions about whether the project is a good fit.

The project will only be implemented with the involvement of the interested community, First Nation and Métis communities, and other communities in the surrounding area. The site ultimately selected must also meet stringent technical and regulatory requirements.

How long does it take?

The length of time required to conduct this initial environmental characterization will vary depending on the size of the area, the nature of the terrain and how easy it is to access. Typically, it is expected to take a few weeks to complete. Several months would then be required to review and interpret the data.

Is this an environmental assessment?

No, this work is much more preliminary than a formal environmental assessment. It will help provide information to inform future, more detailed studies that will be required as part of the site selection process. Once a preferred site is identified, a full environmental assessment will be required.

Canada's plan for the safe, long-term care of used nuclear fuel

The NWMO is implementing a plan called Adaptive Phased Management, which was selected as Canada's plan by the Government of Canada in 2007. A process is now underway to identify a safe site in an area with an informed and willing host where Canada's used nuclear fuel can be safely contained and isolated in a deep geological repository.

Learn more. Be involved.

NWMO representatives regularly visit each community involved in the site selection process. You can also find us at a number of community events throughout the year. Contact us at the community office in your area or at contactus@nwmo.ca.



For more information, please contact:

Nuclear Waste Management Organization
22 St. Clair Avenue East, Sixth Floor
Toronto, Ontario M4T 2S3, Canada
Tel.: 416.934.9814 Toll Free: 1.866.249.6966
Email: contactus@nwmo.ca
Website: www.nwmo.ca