South Bruce Nuclear Exploration Project

July 2022

Studies: Infrastructure Baseline and Feasibility Study

Community and Project Infrastructure Needs

The Municipality of South Bruce and the Nuclear Waste Management Organization (NWMO) are conducting a wide range of studies to inform the community's willingness to host the NWMO Project. All studies are also being reviewed by peer reviewers who are subject matter experts in their field. The Infrastructure Baseline and Feasibility Study was presented at the Community Liaison Committee (CLC) meeting on July 7th, 2022.

Highlights

- The study focused on infrastructure such as drinking water, sewer and stormwater services, waste management, and utilities like gas, electricity and internet.
- It recommends an Infrastructure Master Plan be conducted, which outlines how to maintain and expand this infrastructure to serve anticipated population and employment growth and the resulting need for expansions to water, wastewater, and stormwater infrastructure.
- The Deep Geological Repository facility would require new infrastructure, which would need to be planned before the pre-construction phase. The NWMO can largely address its own needs for water supply and waste water treatment, although some opportunities to connect to municipal infrastructure can be explored in greater detail if the residents of South Bruce are willing and the community is selected.
- Whether the Project is located in South Bruce or not, natural population growth will require new and upgraded infrastructure. The additional demands from Project-related growth are comparatively modest. However, some infrastructure upgrades might need to happen sooner to accommodate this growth.
- Water could be supplied to the Project via a new watermain extending from the Teeswater Drinking Water System. Domestic sewage from surface facilities could be treated at the Teeswater Waste Water Treatment Plant prior to discharge. This route limits new infrastructure construction at the DGR site. Though, depending on content, some process wastewater may need pre-treatment before conveyance.

Addressing Our Guiding Principles

The studies address several of the community's 36 Guiding Principles to determine if the Project is right for South Bruce. They relate to whether the Project will bring meaningful benefit to the community, specifically:

10. The NWMO will identify the potential for any positive and negative socio-economic impacts of the Project on South Bruce and surrounding communities and what community benefits it will contribute to mitigate any potential risks.

18. The NWMO will commit to relocate the working location of a majority of its employees to South Bruce as soon as it is reasonably practicable to do so after the completion of the site selection process.

27. The NWMO will fund the Municipality's preparation of a housing plan to ensure that the residents of South Bruce have access to a sufficient supply of safe, secure, affordable and well-maintained homes.

29. The NWMO will prepare an infrastructure strategy that addresses any municipal infrastructure requirements for the Project and will commit to providing appropriate funding for any required upgrades to municipal infrastructure required to host the Project in South Bruce.

32. The NWMO, in consultation with the Municipality and other local and regional partners, will prepare a strategy to ensure there are sufficient community services and amenities, including health, child-care, educational and recreational facilities, to accommodate the expected population growth associated with hosting the Project in South Bruce.

Learn more about the...

Infrastructure Baseline and Feasibility Study

Study By Morrison Hershfield Ltd. **Peer Review Conducted By** R.J. Burnside and GHD

NWMO-led Study: The NWMO's consultants conducted this study. South Bruce hired independent consultants to peer review the studies, and confirm the methodologies and findings.

What was the scope and purpose of the study?

- Identify the current and planned infrastructure and how it will need to expand to accommodate future growth.
- Outline how growth from the Project could affect future infrastructure expansion, including which existing municipal infrastructure could potentially serve the Project and what upgrades would be needed.

How was the study conducted?

- Consultants reviewed Project information and data from the NWMO related to the cost and infrastructure needs of the Project. Consultants reviewed infrastructure documents from local and regional utility providers to further understand current infrastructure usage and mapping.
- Interviews were conducted with utility providers with expertise in the local and regional usage of electricity and telecommunications services.
- The study used growth forecasts by *metroeconomics* to determine the potential need for infrastructure upgrades in the Municipality and surrounding communities without the Project.

What did South Bruce's peer reviewers say?

- Peer reviewers recommended further study to outline how the NWMO will monitor the need for infrastructure expansion, beyond monitoring population and housing growth.
- The peer reviewers asked the consultants to consider the impact on infrastructure, even if employees do not choose to live in South Bruce. All direct, and a portion of the indirect and induced jobs from the Project will be located in the Municipality.
- Further analysis was suggested of the benefits and feasibility of servicing the Project with municipal water and sanitary wastewater.
- Reviewers suggested moving forward with an Infrastructure Master Plan.

What did we learn?

- The study revealed that most of the communities in the study area have well-established infrastructure that needs continuous maintenance. However, some systems are approaching their maximum capacity such as the Teeswater Wastewater Treatment Plant, the Teeswater and Mildmay Drinking Water Systems, and the Mildmay main sanitary pumping station. Upgrades would need to be accelerated to meet needs of Project-related growth.
- Some areas, like Formosa and Teeswater, either lack a municipal drinking water service entirely or do not have a sufficient supply to provide fire protection.
- Potential steps to mitigate Project impacts and maximize benefits, include: installing a municipal drinking water system in Formosa, engaging early with private utilities for expansion of gas and high speed internet services, creating a municipal infrastructure master-plan, and keeping expansion of municipal infrastructure flexible based on needs.

"Meet the Experts" July 28, 2022 7-9 p.m. via Zoom

Authors and experts will be available to answer questions on the Local Traffic Effects Study, the Road Conditions Effects Study, and the Infrastructure Baseline and Feasibility Study.

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