

Comments on NWMO's Initial Project Description for the Deep Geological Repository for Canada's Used Nuclear Fuel Project, IAAC registry reference number 88774.

Jaro Franta, 5 January 2026

Thanks to the Impact Assessment Agency of Canada and the Canadian Nuclear Safety Commission for inviting comments on the Initial Project Description for the Deep Geological Repository for Canada's Used Nuclear Fuel Project, proposed by the Nuclear Waste Management Organization (the NWMO), per Canadian Impact Assessment Registry reference number 88774.

There seems to be very little new material in either version of the Initial Project Description - NWMO document APM-REP-05000-0211-R000, "Plain Language Summary", or the "full version", APM-REP-05000-0210-R000.

In fact, some of the information presented in the IPD is already superseded by document NWMO-TR-2025-01, "Technical Program for Long-Term Management of Canada's Used Nuclear Fuel – Annual Report 2024" (dated November 2025).

Nevertheless, a few items in the IPD are worth commenting on.

First off, it's good that NWMO finally reveals the WLON referendum result of 87.4% of participating members having expressed a willingness to proceed into regulatory phases of the project, on November 16, 2024. Apparently that referendum result was intended to remain secret forever, along with the Hosting Agreement (which remains secret to this day).

Next, there appears to be a disparity between the “Plain Language Summary” of the IPD and the “full version”, as shown in the excerpts below:

APM-REP-05000-0211-R000

Initial Project Description Plain Language Summary (English) – Deep Geological Repository (DGR) for Canada’s Used Nuclear Fuel Project
December 2025

10.3 Description of Activities by Phase

The following list provides a summary of proposed activities for each phase of the Project:

- **Site preparation**—Includes all activities to be completed under the initial licence application to the CNSC. Activities associated with the initial licence include initial clearing, grubbing, terracing, and contouring of the Project site to provide the necessary topography to construct the surface facilities. Site preparation activities also includes the construction of non-nuclear infrastructure such as roads, site water management features and the accommodation camp.

APM-REP-05000-0210-R000

Initial Project Description: Deep Geological Repository (DGR) for Canada’s Used Nuclear Fuel Project
December 2025

Canadian Nuclear Safety Commission Licensing Process

Consistent with CNSC regulatory guidance, including REGDOC-1.2.3 (*Licence Application Guide: Licence to Prepare Site for a Deep Geological Repository*) and REGDOC-1.2.1 (*Guidance on Deep Geological Repository Site Characterization*), the NWMO is preparing an initial licence application for site preparation activities including construction of non-nuclear below surface infrastructure, supported by ongoing site characterization work. This work is being developed in a manner complementary to the Impact Statement, as the technical documents prepared under the CNSC’s rigorous safety and environmental protection frameworks will directly inform key conclusions within the Impact Statement.

The “Plain Language Summary” of the IPD mentions only surface activities during the “Site Preparation” phase of project, whereas the “full version” refers to “below surface infrastructure”. The latter appears to be a reference to the UDF – Underground Demonstration Facility – but it is never mentioned explicitly. This point should be clarified and made consistently in both versions of the IPD.

On a more technical aspect of the IPD, we see in Figure 14.1 of APM-REP-05000-0210-R000 that the “Proposed DGR Project Footprint” is bisected almost exactly in half by the Wabigoon Dyke. At the same time, the “Proposed DGR Project Footprint” is shown without any details of the layout of the DGR placement panels.

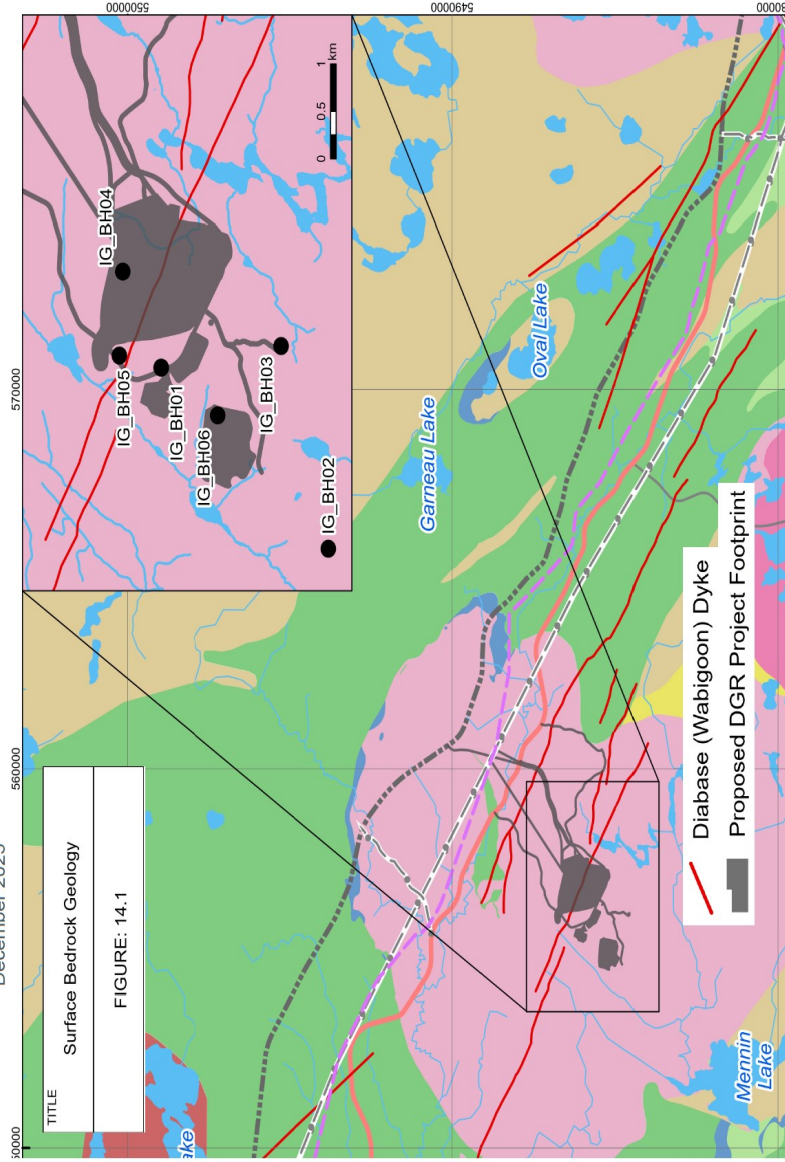
By contrast, we can surmise from document NWMO-TR-2025-01, “Technical Program for Long-Term Management of Canada’s Used Nuclear Fuel – Annual Report 2024”, that the DGR placement panels will indeed be widely separated by the Wabigoon Dyke and other geological “lineaments”. This is illustrated by the graphic on the next page.

It is unclear why NWMO has selected a DGR Project Footprint that is bisected by the Wabigoon Dyke, and how they plan to service both sides, with just one primary access shaft. This is all the more puzzling, considering that there appears to be better geology about a kilometer or two to the south-east, where the Wabigoon Dyke does not extend.

In terms of transportation access to the DGR Project Footprint that is bisected by the Wabigoon Dyke, this appears to be the favored location if transport of UFTPs (Used Fuel Transport Packages) is exclusively by road.

By contrast, a DGR Project Footprint slightly to the south-east would be the favored location if transport were by way of a new “rail spur” from the nearby CPR main line, just north of highway 17, using the existing DSCs (Dry Storage Containers) coupled with “impact limiters” on the rail cars. There would be no need for re-packaging millions of used fuel bundles from the existing DSCs into UFTPs.

The rail option would also respect the wishes of residents in the region to avoid increased truck traffic on highway 17, which would be in both directions (with empty UFTPs shuttling back to plant sites), as well as including “pilot” vehicles in the convoys.



Boreholes drilled in the Project site (up to 1 km depth) have provided direct confirmation of the geology at potential repository depth and indicate that the rock encountered to approximately 1 km depth is the same relatively homogeneous granitoid rock identified at surface. Examples of the granodiorite-tonalite, from surface and recovered core, are shown in Figure 14.2.

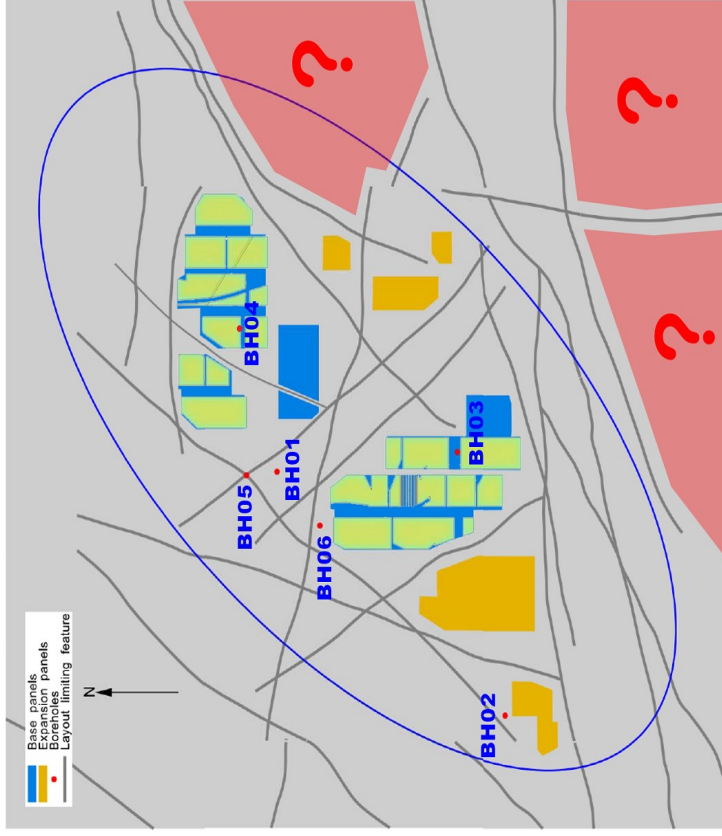


Figure 7.17: Potential underground area at Revell Site that could be used for placement rooms and central service area, based on space between major lineaments. Figure shows the area needed for base case inventory (blue) and potential areas that could be used for expansion (yellow).

Rail spur from CPR main line to surface facilities located slightly more south-east of the proposed location:

