

Environmental cleanup ahead of schedule

Approximately half of all historic low-level radioactive waste at a legacy waste management site on the Lake Ontario shoreline in Port Granby has been cleaned up. The waste has been relocated to a new long-term waste management facility approximately 700 metres north of the legacy site. The cleanup of the site began in November 2016 as part of the Port Hope Area Initiative (PHAI).



“Our Port Granby Project contractor is currently tracking ahead of the planned schedule, despite the challenges presented by record-breaking rains last spring and summer, which is good news for the project and for the community,” said Craig Hebert, General Manager of Canadian Nuclear Laboratories’ (CNL) Historic Waste Program Management Office. CNL is undertaking the PHAI on behalf of Atomic Energy of Canada Limited, a federal Crown corporation.

As was anticipated during the planning phase of the project, a mix of contaminated soil and industrial refuse has been unearthed. “Most of what’s been recovered so far was planned for before our contractor started to dig,” said Hebert. “In addition to impacted soil, a variety of materials have been found – old process equipment, discarded drums, gas cylinders – which is what we expected but not always where we expected it based on historical records for the site.”

Through the project, approximately 450,000 cubic metres of historic low-level radioactive waste will be transported from the legacy waste

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Complexities of the cleanup

The historic low-level radioactive waste at the Port Granby legacy waste management facility is the result of the uranium refining and processing operations of the former Eldorado Nuclear Limited. The material includes a variety of chemical waste, industrial refuse and contaminated soil. From the 1950s to the 1980s, the waste was dumped in the soft, sandy soil of the lakefront site's steep gorges and buried in trenches.

Excavating the waste at this site requires a well-planned and carefully executed approach. CNL's contractor, AMEC-CB&I Joint Venture, is undertaking the excavation in stages to ensure worker safety as the waste is removed in a carefully planned sequence from specified areas on the site.

While performing work on the site, which is licenced and inspected by the Canadian Nuclear Safety Commission, the contractor and all sub-contractors are subject to rigorous CNL oversight and must adhere to stringent PHAI plans for the health and safety of people and protection of the environment. Here's an inside look at how CNL and its contractor successfully managed the challenges presented by this complex remediation project.



Excavating trenches

Compressed gas cylinders were reportedly buried with other waste in trenches in the late 1970s. Over the summer, workers used hydro vacuum trucks to carefully expose the buried material and, following CNL-approved waste handling procedures, safely recovered all six potentially hazardous cylinders. To ensure protection of people and the environment, on-site air monitoring was conducted continuously as the work progressed.



Stabilizing gorges and bluffs

The site's steep gorges and surrounding bluffs have sandy, porous, unstable soil. Prior to the excavation of waste from the gorges, the terrain was stabilized through foundation work including installation of crane pads, augering and sheet-piling at the East Gorge and West Gorge reservoirs.

Managing water during a record-breaking rainy season

The significant amount of precipitation experienced in the region in spring/summer 2017 presented additional challenges, which CNL has addressed through a number of actions.

PHAI water management plans have been enhanced to reflect the potential for an increase in extreme weather events. Additional preventive measures have been implemented at the long-term waste management facility, including large tanks that have

been installed to provide supplementary storage space to contain water on the site.

Since being placed into service in 2016, the project's waste water treatment plant has consistently met stringent requirements for discharge of treated water to Lake Ontario. All contaminants removed from the waste water are placed in the engineered aboveground mound on site for long-term storage.



**Port Granby
Waste Water
Treatment
Plant**



CNL cleaning up federal lands



As part of its commitment to environmental stewardship, CNL is undertaking ongoing land maintenance in the Port Granby area on behalf of Atomic Energy of Canada Limited, the federal Crown corporation that is responsible for the project lands.

Cleanup and maintenance activities are underway on approximately 175 hectares of federally-owned lands surrounding the Port Granby Project sites, which includes forested and agricultural lands. Access to some areas has now been restricted for public safety.

CNL's contractor, Town and Country of Bailieboro, is removing invasive vegetation, physical hazards and garbage. Vegetation and pest control was employed over the summer to remove invasive species such as dog strangling vine. Garbage – such as food wrappers and bottles, vehicle scraps and discarded household items – is being collected and disposed of appropriately. Fallen tree branches and other physical hazards are also being removed.

Once the initial campaign is completed this fall, CNL will continue to monitor and maintain these federal lands while the Port Granby Project is underway.

Approximately two tonnes of garbage, 40 old car tires and large debris such as tree branches were removed from the area over the summer.



Get involved in the PHAI – Join the CLG!

Are you interested in learning more about the Port Hope Area Initiative?

Could you play a role by helping to increase community awareness about the Port Granby Project?

Why not apply to become a member of the Citizen Liaison Group (CLG)?

The Port Granby Project CLG provides a forum to exchange information about the cleanup and long-term safe management of historic low-level radioactive waste in Southeast Clarington. The CLG meets four times a year.

We are currently accepting applications for new members.

As a volunteer member you will discuss ways to improve communication and promote community understanding of the project. We are particularly interested in attracting residents who are active in a community group or local professional association and will share that perspective.

The deadline for applications is December 8, 2017.

To receive an application form please visit PHAI.ca or call **905.885.0291**.

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site to the new facility. To date, approximately 200,000 cubic metres of waste has been placed in the lined cells of the newly constructed engineered aboveground mound.

All excavated waste is being transported along internal roadways and through an underpass at Lakeshore Road to the new facility for long-term safe storage. The underpass was

built specifically to fulfill an Environmental Assessment commitment that no waste would travel on public roadways.

The Port Granby Project is expected to be completed before the scheduled date of 2020, after which long-term monitoring and maintenance of the storage mound will begin.



Get an inside look through demonstrations and tours



Participate in meetings with project leaders



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