

Relocate historic low-level radioactive waste away from Lake Ontario, LLRWMO recommends

Clarington, Ontario, February 9, 2004 – The Low-Level Radioactive Waste Management Office (LLRWMO) today presented to Clarington Municipal Council the results of the alternative means studies, which are part of the environmental assessment of the Port Granby Long-Term Low-Level Radioactive Waste Management Project.

Over the next two months, the public, the municipality and their technical advisors, federal and provincial agencies and other interested groups will have the opportunity to carefully review these findings and provide comments to the LLRWMO. All comments will be considered before the results of the alternative means process are finalized.

A new state-of-the-art aboveground mound facility is recommended as the best option for the safe long-term management of historic low-level radioactive waste currently located in south-east Clarington. This concept to relocate the historic low-level radioactive waste from its current location on the shoreline of Lake Ontario to a new facility on an available neighbouring site further away from the lake ranked highest in the study of alternative means.

During the past 20 months, many ideas for long-term management approaches were gathered from the public and the international technical community, studied in detail and evaluated by the LLRWMO project team. The resulting short list of three concepts was presented to the public in June 2003. Those concepts were then subjected to detailed examinations and comparative evaluation. The waste relocation concept emerged as the best option in terms of public health and safety, environmental protection, technical reliability and cost effectiveness.

The studies also resulted in a recommended route for transporting construction materials to the new facility site north of Lakeshore Road. The recommended route would use an up-graded Elliott Road and its road allowance, Concession Road 1 and Newtonville Road from Highway 401. Use of Lakeshore Road would be minimized.

“We’re grateful to the public and to the Municipality for their long-term interest and involvement in developing the best alternative for safely managing the historic waste at the closed Port Granby Waste Management Facility,” said LLRWMO Director Robert Zelmer. “The existing conditions must be improved for the long-term and we believe the recommended concept, developed through the Environmental Assessment alternative means process, will best meet the regulatory requirements and the needs of future generations of Clarington and Canadian residents.”

-30-

Background information, notice of upcoming events and maps are attached. Detailed reports are available on CD ROM and for review at Clarington libraries in Bowmanville, Orono and Newcastle and at the Project Information Exchange at 110 Walton Street, Port Hope.

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Low-Level Radioactive Waste Management Office



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A long-term management strategy for historic low-level radioactive waste in Clarington

The community-based Port Granby Long-Term Low-Level Radioactive Waste Management Project was initiated in 2001 by the federal government and the Municipality of Clarington, building on the 1999 recommendations of a community advisory committee. The purpose of the Project is to provide appropriate, safe, local, long-term management of historic low-level radioactive waste and contaminated soils in the Municipality of Clarington.

As part of the environmental assessment process, the community concept of in-situ management (no movement of low-level radioactive waste off the current 18 hectare site adjacent to Lake Ontario) was evaluated and compared with other alternative means of carrying out the Project.

Over the past year-and-a-half, numerous workshops, open houses and consultation activities provided ideas and contributed evaluation criteria to be used in the ranking of alternative means.

Technical and environmental studies requested by the Municipality of Clarington, including special investigations of the groundwater conditions, shoreline protection requirements, and thorium handling issues, assisted greatly in the detailed evaluation process.

Why recommend relocating the waste?

Relocating the waste further away from Lake Ontario was considered the best long-term management solution for the following reasons:

- A new above-ground engineered waste management facility ranked first when concepts were compared on the basis of environmental, human health and safety, technical, and economic factors. It ranked a close second on community factors.
- Significant advantages of a new state-of-the-art management facility over in-situ management include:
 - No need to contend with the major concerns of shoreline and bluff erosion or groundwater diversion requirements;
 - No construction in Lake Ontario and no bluff stabilization work with the associated potential to disrupt aquatic habitat;
 - A much lower volume of construction materials to be transported over public roads to the facility;
 - Complete encapsulation of the waste and therefore superior environmental performance;
 - Lower long-term operation maintenance requirements and therefore a lower burden on future generations;
 - Greater experience and precedents for managing waste this way;
 - Less obtrusive visually to the local landscape;
 - Easier to monitor and a lower risk of facility failure;
 - The ability to turn over the lakeshore property to alternative uses; and
 - Re-establishment of shoreline linkages for wildlife and human activity.

Experience shows that waste containing radioactive material (including Thorium 230) can be moved safely. Concerns expressed by some community members regarding effects of excavation and movement of waste will be addressed by appropriate safety measures, continuous monitoring and selection of transportation routes that have minimal effects on current public roadways and local residents.

Port Granby Project – Environmental Assessment Next Steps

- Review of the results of the alternatives means process by stakeholders:
 - Local residents and the general public;
 - The Municipality of Clarington and its team of expert peer reviewers – Hardy Stevenson and Associates;
 - Federal, provincial and local authorities and agencies;
 - Any other group or individual with an interest in the Project.
- Consult stakeholders for comments on recommended alternative means.
- Collect and consider all comments on the alternative means process and resulting recommended concept.
- Revise and issue report on recommended alternative means.
- Develop a detailed description of the project in order to conduct the assessment of the effects of the project on the environment.
- Release the baseline environmental reports on human health and safety considerations, terrestrial, aquatic, atmospheric, groundwater and geology and social and economic environment for review and comment by stakeholders.
- Conduct effects assessment of the recommended project.
- Issue draft Environmental Assessment Report for review by local residents, the general public and key stakeholders.

Upcoming Public Consultation Activities

- Announcement of results of environmental assessment alternative means process will be mailed to almost 700 stakeholders in the Port Granby project;
- Reports (Alternative Means, characterization of the environment etc.) will be made available on CD ROM and at libraries and the Project Information Exchange for review; by interested stakeholders
- Meetings will be held with a variety of community groups such as Ratepayers Associations in South-east Clarington and Bondhead/Newcastle, School Parents Associations etc.
- Open Houses will be held:
 - **March 31, 2004 at the Orono Hall;**
 - **April 6, 2004 at the Newcastle Village Hall;**
 - **April 7, 2004 at the Newtonville Community Hall; and**
- Comments on Alternative Means for the Port Granby Project will be received until April 16, 2004.

Join us at the Newcastle Chamber of Commerce Home & Trade Show coming on May 27, 2004

To arrange a presentation for your group please call 1 866-255-2755

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Recommended Transportation Routes—Port Granby Project

For incoming construction materials, the recommended transportation route takes the Newtonville Road exit from the 401 south to Concession Road 1; follows Concession Road 1 east to Elliott Road; and takes Elliott Road south to the proposed new site, approximately 300 metres north of Lakeshore Road. Waste excavated at the existing facility would be moved across Lakeshore Road in trucks on a dedicated access road to the new facility.



Port Granby Project Recommendation

The recommendation for the best way to carry out the Port Granby Long-Term Low-Level Radioactive Waste Management Project is to excavate, relocate and place the waste into a new state-of-the-art aboveground mound, specifically engineered to safely contain and manage the waste for more than 500 years. The new, engineered facility would be built on a neighbouring site, north of Lakeshore Road, currently owned by Cameco Corporation.



Six possible access route alternatives were identified and evaluated for transportation of construction materials on existing roads between Highway 401 and the new long-term waste management facility.

These evaluations were based on factors such as the number of trucks, the length of time the routes would be in use, potential for accidents and environmental effects, number of homes along each route, potential disturbance to residents, and cost of roadway improvements including upgrades to intersections and railway crossings.

Call 1 866-255-2755 (toll free) or 905 885-2091 for additional information.

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1. *What role did the community have in selecting the proposed concept?*

Over the past 25 years, community volunteers and municipal representatives have had a major role in developing concepts to stabilize and clean up the Port Granby waste Management Facility.

The community participated at every step of the alternative means process – from the initial development of ideas and issues right through to commenting on the short list of alternative means. Members of the community put forward many alternatives for consideration that were carefully evaluated and participated in the development of the evaluation methodology used to evaluate and rank the concepts.

Regarding this report, the community's role will be to scrutinize the results of the alternative means process and to provide comments to the LLRWMO and to the federal authorities responsible for the Environmental Assessment of the Port Granby Project.

2. *How and when will the community have an opportunity to comment on this proposal?*

Before the final preferred concept is determined, the community will have further opportunities at three open houses in March/April 2004 to comment on the Qualified Concept presented in this report. Interested individuals and groups are also invited to meet directly with LLRWMO representatives to discuss the proposals during February and March 2004.

5. *What role will the community have in determining what the final Project design looks like?*

The public is being asked to review the information now being provided. If any errors and omissions are identified, these will be carefully reviewed and revisions to the proposals will be made where warranted. All community ideas for alternative means of managing the wastes received to date have been carefully considered. Although the time for making new proposals is over, if any truly new and compelling ideas are put forward, they will be considered and evaluated. Detailed design and effects assessment on this concept will require a great deal of community input and all suggestions to mitigate the impact of the new facility will be carefully considered.

3. *What are the key advantages of Concept II over the other concepts that were evaluated?*

Concept II scored best on all criteria (Health & Safety, Environment, Technical, Community and Economic) and maintained its rank through all sensitivity analyses. It was found to be particularly superior for the following reasons:

- No need to contend with the major concerns of shoreline and bluff erosion or groundwater diversion requirements;
- No construction in Lake Ontario and no bluff stabilization work with the associated potential to disrupt aquatic habitat;
- A much reduced requirement for construction materials to be transported over public roads to the facility;
- Complete encapsulation of the waste and therefore superior environmental performance;
- Lower long term operation maintenance requirements and therefore a lower burden on future generations;
- Greater experience and precedents for managing waste this way;

- Less obtrusive visually to the local landscape;
- Easier to monitor and a lower risk of facility failure;
- The ability to turn over the lakeshore property to alternative uses; and
- Continuance of shoreline linkages for wildlife and human activity.

5. *How will the community benefit from this Project?*

The community will have the peace of mind that the radioactive wastes being stored at Port Granby are managed in a state of the art facility designed for very long-term storage. In addition, the Municipality will receive the \$10 million fund provided by the Government of Canada for the benefit of the residents of Clarington.

6. *Is Concept II consistent with the Legal Agreement signed by the Municipality and the federal government? What happened to the proposal in the 1998 Clarington Citizens Advisory Committee Report?*

The proposal made by the Clarington Citizens Advisory Committee was known as concept B2, which is the concept referred to in the Legal Agreement. That concept was on the short-list as Concept IA and ranked below both other concepts in the comparative alternative means process. Section 4.1.2 of the Legal Agreement anticipates that the environmental assessment process may determine a better alternative means of carrying out the project.

7. *How will the wastes be moved from the existing facility to a new one farther away from the Lake?*

Waste will be moved by covered truck. Various options for crossing Lakeshore Rd. are being considered, including a controlled intersection, a temporary underpass or bridge.

8. *How will residents in the vicinity of the proposed facility and along the transportation route be affected?*

The next step of the environmental assessment is to conduct a detailed effects assessment, which will provide a comprehensive answer to this question. The effects assessment will identify all likely effects of project construction, operation, waste and materials transportation and how best to avoid or minimize these effects.

9. *How much agricultural land will be affected if this proposed project is built?*

About ten hectares of Class 1 agricultural land will be used for the Project. The effect of the Project on neighbouring farmland will be studied in detail in the next step of the environmental assessment.

10. *What will the aboveground mound look like? How visible will it be?*

The proposed aboveground engineered mound will occupy about 10 hectares (25 acres) and gradually rise about 8 m (25 feet) to a plateau. The facility will be located in the north-central part of an available property north of the existing Port Granby Waste Management Facility, set back about 350 m from Lakeshore Road. The mound will be barely visible from most roadways in the area, including Lakeshore Road. For example, a person standing on the railway bridge at Newtonville Road would see a thin sliver of the top of the grassed mound in the distance.

11. *How can we be sure that this new facility will not be used to store wastes from other communities in future?*

The Legal Agreement between the federal government and the municipalities of Clarington, former Hope Township and former Town of Port Hope that defines the Port Hope Area Initiative clearly identifies the waste that will be handled at the new long-term waste management facility. The new facility will be constructed to accommodate only the wastes from the existing Port Granby facility, and will operate under a licence issued by the Canadian Nuclear Safety Commission (CNSC) that will restrict the waste to the quantities in place after completion of the Project.

12. *How can we be sure the facility will have the resources to properly monitor and maintain the facility hundreds of years in the future?*

In consultation with the Municipality, Canada will establish a monitoring and maintenance program with the required financial guarantees.

13. *What's going to happen to the sites – existing and new – once the project is built?*

The existing site will be backfilled, graded and shaped. Fences will be removed and the area left to regenerate as a natural environment compatible with neighbouring properties. The detailed effects assessment and engineering will determine how long monitored groundwater collection and treatment will continue. The bluffs on the shoreline will not require stabilization. An end use for the new facility has not been decided, but based on community input at public workshops and preliminary investigations, the technical team recommended the completed facility site be used for passive recreation/parkland. As the environmental assessment progresses, discussions will continue with the public, Municipality of Clarington and Canadian Nuclear Safety Commission, which has ultimate responsibility for licensing the completed facility.

14. *How will residents and farmers be compensated if construction of this facility results in a decline in property value or loss of farm or business income?*

A property value protection program is in place to compensate anyone, at the time of sale, whose property is reduced in value as a result of Project construction or operation. Any potential loss in farm income will be determined in the effects assessment stage of the EA and, if necessary, appropriate mitigation or compensation will be recommended.

15. *Is anyone conducting an independent technical review of how the Qualified Concept was selected?*

The Municipality of Clarington has appointed a team of technical experts (Hardy Stevenson and Associates) to conduct a peer review of the Qualified Concept Report. Their comments and those of the community will be addressed by the Low-Level Radioactive Waste Management Office in its final recommendations to the Municipalities and the Responsible Authorities (RAs).

16. *Who prepared the Qualified Concepts Report and what are their qualifications?*

On behalf of the Low-Level Radioactive Waste Management Office, Golder Associates Ltd., an international consulting firm of scientists and engineers prepared the Port Granby Qualified Concepts report. Golder Associates has many years experience in the field of environmental assessment (EA). Most recently, they were the lead consultants for the Pickering A Restart EA, the Bruce A Restart EA and the Darlington Used Fuel Dry Storage EA.

17. *Are there successful facilities similar to this concept operating at locations around the world? How long have they been in operation?*

A variety of sites in both the United States and Canada have used engineered storage mounds as a long-term storage solution for low-level radioactive waste and marginally contaminated soils.

American facilities include:

- Weldon Spring Site, Missouri;
- Edgemont Mill Site, Fall River County, SD;
- Canonsburg Mill Site, Washington County, PA; and
- Niagara Falls Storage Site, Lewiston, NY.

Two similar projects carried out by the LLRWMO in Canada are the:

- Passmore Interim Storage Site, Scarborough, Ontario; and
- Long Term Management Facility, Fort McMurray, Alberta.

18. *What happens next? When will this Project finally be completed?*

- All stakeholders, particularly local residents and the Municipality and its peer review team, are invited to scrutinize the results and provide comments.
- All comments on the recommended concept will be considered and addressed.
- The Municipality indicates concurrence to the LLRWMO recommendation,
- The LLRWMO proceeds with engineering and environmental effects assessment of the recommended concept. The effects assessment will confirm that no significant adverse effects will result from the project.
- Licensing, construction and commissioning of the new facility will take an additional five years.
- The Port Granby Project could be completed by 2011.