

Open Houses

Wednesday, March 31, 2004: 6:00 - 9:00 p.m.
Orono Hall, 5315 Main Street, Orono

Tuesday, April 6, 2004: Noon - 8:00 p.m.
Newcastle Village Hall, 20 King Street West, Newcastle

Wednesday, April 7, 2004: 6:00 - 9:00 p.m.
Newtonville Community Hall, 21 Church Lane, Newtonville

New Project Information Exchange

Come visit the new Port Granby Project information office, open Fridays from noon to 5:00 p.m. in the Newcastle Village Hall (former council chambers) at 20 King Street West. Drop in and review information and discuss the project with our staff.

WANTED: Public comment

Over the next month, the LLRWMO will be gathering your feedback. All comments received by April 16, 2004, will be reviewed before the recommendation is finalized. Here are some of the consultation opportunities underway:

Open Houses: Over the next few weeks (see top of page) Open Houses will be held in Newtonville, Newcastle and Orono.

Municipal Review: The Municipality of Clarington, its technical review team and numerous government agencies are reviewing the results and discussing key issues with the LLRWMO.

Community Consultation: The LLRWMO is consulting directly with community groups such as the Southeast Clarington Ratepayers Association, Bondhead/Newcastle Ratepayers, local service clubs, home and school associations and business groups. Before the consultation is completed, residents living closest to the recommended site and along the proposed transportation route will be personally contacted to discuss the project.

Focus Groups and Telephone Survey: Small group discussions followed by a telephone survey will provide even more input about the community's comfort with the recommendations for a long-term waste management solution.

Come visit us at the Newcastle Home and Trade Show May 27, 2004.

Here's how to reach us:

Project Information Exchange 110 Walton Street, Port Hope Hours: Open 1:00 p.m. to 5:00 p.m. Monday through Friday	Project Information Exchange 20 King Street West, Newcastle Village Hours: Friday, Noon to 5:00 p.m.	Telephone: 905-885-0291 Toll-free: 1-866-255-2755 Fax: 905-885-0273 email: info@llrwmo.org
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Low-Level Radioactive Waste Management Office

Winter/Spring 2004

News

SPECIAL PORT GRANBY PROJECT EDITION

The results are in Process recommends relocating waste

► This is a special edition of the *News*, devoted entirely to the Port Granby Project. After a year-and-a-half of intensive technical studies and community input, an evaluation of alternatives by the Low-Level Radioactive Waste Management Office (LLRWMO) has identified the best option for the safe long-term management of the historic low-level radioactive waste currently located at the Port Granby Waste Management Facility in southeast Clarington.

Findings of the extensive process show that relocating the waste to a new state-of-the-art engineered aboveground mound away from the existing location on the shores of Lake Ontario is the best way to safely manage the waste. The Municipality of Clarington and its technical advisors are carefully reviewing the LLRWMO's recommendation. Their input, along with comments from you,

Clarington This Week reporter Shelly Jordan and Orono Weekly Times editor Marg Zwart review the recommendations with Project Director Glenn Case.



the public, federal and provincial agencies and other interested groups will be considered as the project moves into the next steps of the environmental assessment.

Many local residents have taken part in the public workshops that played a crucial role in bringing the project to this stage. Your input continues to be important. Open Houses are being held over the next several weeks (*see back page*). The recommendation report (Qualified Concept Report) is available at all Clarington public libraries, project information offices and on CD-ROM.

In This Issue

- Understanding how we got here
- Why relocation is the best solution
- Questions and Answers
- Opportunities to comment

INFORMATION OFFICE OPENS

(See page 8)



Intensive environmental assessment in progress

Findings reflect year-and-a-half of studies and public input

The process to select the best solution to southeast Clarington's historic waste management problem began two years ago with the launch of the environmental assessment for the Port Granby Project.

On the table was a concept proposed in 1999 by the Municipality of Clarington and a committee appointed by council. It called for on-site management of the waste at the existing Port Granby Waste Management Facility with only East Gorge waste excavated and relocated to an aboveground mound to be built on the site.



Local residents joined the LLRWMO and Cameco (site owner) for a tour of the existing Port Granby Waste Management Facility in November 2003.

But the instability of the site on the shoreline of Lake Ontario presented a host of design challenges for safely isolating the waste for generations to come: 30 metre-high eroding bluffs, 400 metres of receding shoreline and porous sandy soil conditions. Investigating the existing environmental conditions and developing solutions to deal with them was the first step.



Investigating Alternative Means

To make sure the best long-term solution was found, the Scope, or terms of reference for the environmental assessment, directed the LLRWMO to investigate alternative ways of carrying out the project, including relocating the waste away from Lake Ontario.

A step-by-step approach to identify a wide variety of options and involve the community was developed. This *Alternative Means Process* began in June 2002 with a series of public workshops. Participants proposed ideas, helped define the project's goals and develop criteria the technical team would use to analyze and evaluate the ideas.



Assembling Feasible Concepts

By using information from various studies underway and ongoing community input, the project team narrowed down the ideas to three potential concepts for managing the waste. These Feasible Concepts (see box above right) were presented to the public at an Open House in June 2003 and in the Spring 2003 edition of the *News*. Each concept assembles ideas for dealing with specific issues such as groundwater management, bluff stabilization and waste handling.



Comparing the concepts

To zero in on the leading solution, the team evaluated and ranked the

1st

Concept II – Highest ranking solution

Relocation of Waste to New Long-Term Facility away from Lake Ontario

2nd

Concept IB

On-Site Management of Waste with No Waste Excavation

3rd

Concept IA

On-Site Management of Waste with East Gorge Waste Excavated

concepts. Each concept was scored according to how well it satisfied specific issues identified by the project team and participants at the public workshops. For example, how reliable would the proposed groundwater diversion system be? Was there



Clarington residents John Stephenson and Harvey Thompson discuss the project with Project Director Glenn Case at a community Open House.

previous experience with the concept? Weighting factors, reflecting the importance the community placed on the issues, were applied before each concept's scores were totalled. Issues that related to human health and safety were weighted highest, followed by environmental concerns, technical factors, ability to meet community needs and, finally, economics.

The result of the scoring ranked relocating the waste away from the shoreline the highest (Concept II), followed by on-site management with no waste excavation (Concept IB), and on-site management with East Gorge waste excavation (Concept IA).



Triple-checking the comparisons

To check the validity of the scoring, the team used three additional tests. *Advantages and Disadvantages* highlighted the broader characteristics of each concept; *Sensitivity Analysis* gauged the impact of individual scores on the overall results; and *Issues and Trade-offs* focused on how effectively the highest-ranking concept (II) addressed key issues.

Each time, Concept II came out on top. This triple-check confirmed the strength of the findings.



Clarington resident Mavis Carleton and Sue Stickley, LLRWMO communications officer, exchange ideas at a community Open House. Resident Sarwan Sahota reviews information.



Where does the process go from here?

As the municipality, federal and provincial agencies, public and other interested groups review the outcome of the process, work on the environmental assessment continues. All comments will be considered before the results are finalized. Detailed engineering studies on the recommended concept and an effects assessment to develop measures to minimize potential negative effects of the project will begin soon.

Aboveground mound designed for safety

Relocating the waste to a new aboveground mound facility away from the shoreline of Lake Ontario is considered the best long-term management solution. This concept (II) ranked highest in four of the five evaluation categories: technical reliability, protection of the environment, minimizing risk to human health and safety and cost effectiveness. It ranked a close second for meeting community needs.

What is the recommended concept?

The recommended approach calls for excavation and relocation of the historic low-level radioactive waste and contaminated soil away from the existing Port Granby Waste Management Facility. The new facility would be built in the north-central part of an available property north of Lakeshore Road. The aboveground mound would safely isolate the waste using an engineered base liner and cover system. It would be capped, closed and monitored over the long-term.

Why relocating the waste is the best solution

Significant advantages over on-site management include:

- ◆ Improved long-term environmental safety, reliability and ease of monitoring by complete encapsulation of the waste;
- ◆ Greater experience and precedents for managing waste this way;
- ◆ No need to overcome major environmental challenges associated with shoreline and bluff erosion and groundwater contamination;
- ◆ No need for construction in Lake Ontario and along the shoreline, avoiding disruption to aquatic habitat and allowing wildlife corridors to be maintained;
- ◆ Potential for public use of regenerated shoreline property;
- ◆ Much reduced need for construction materials resulting in fewer trucks traveling local roads and greater public safety;
- ◆ Reduced long-term operation and maintenance requirements, lowering the burden on future generations.

Recommended transportation route

The process developed to identify, evaluate and compare waste management options was also used to recommend a transportation route for trucks carrying construction materials to the proposed new Port Granby Long-Term Waste Management Facility.

The recommended route extends from Highway 401 at Newtonville Road, south to Concession Road 1, east to Elliott Road and south along Elliott Road and its upgraded road allowance to the new facility, north of Lakeshore Road.

Six potential routes were identified and evaluated. The technical team considered factors such as the number of trucks, potential for accidents and environmental effects, disturbance to residents and required roadway improvements.

Covered and secured trucks carrying waste from the existing site would cross Lakeshore Road and travel along a dedicated access road to the new facility.



Questions & Answers

Concept II requires excavation of the low-level radioactive waste. Why did it score higher (better) under Human Health and Safety than Concept IB, which requires no excavation?

In comparing the concepts, the evaluation process considered both radiological and non-radiological health effects. Using the findings from a special study into potential risks associated with handling Thorium-230 and other radioactive elements in the waste, the technical team concluded that proven safety precautions and environmental safeguards would fully protect the public and workers from associated health risks. In comparing non-radiological health risks, however, the team found that on-site management posed two risks more difficult to address.

First, the greater number of trucks required to transport construction materials for the on-site concepts would increase the risk of accidents. Second, construction along the shoreline and bluffs would present a greater risk to workers than construction of the aboveground mound facility.

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

Under Concept II, once the waste is removed, the existing site would be graded and revegetated. Monitored groundwater collection and treatment might be required for a short time, but the site could eventually be returned to unrestricted land uses. An end use for the new facility has not been decided, but based on public input and preliminary evaluation, the technical team concluded that the completed facility site could be used for passive recreation/parkland. As the environmental assessment progresses, discussions on appropriate end uses for the proposed site will continue with the public, Municipality of Clarington and Canadian Nuclear Safety Commission, which would license the facility.

How are you going to protect the peaceful rural character of Lakeshore Road from the truck traffic the project will cause?

The environmental assessment directs the LLRWMO to assess and reduce potential negative effects of the project. Detailed environmental studies over the past year-and-a-half have collected valuable baseline information such as current dust and noise levels and the uses and community character of Lakeshore Road. Using this information, the project team's environmental specialists will identify potential adverse effects and

recommend ways to minimize them. Roadway modifications such as a temporary underpass, bridge or traffic signals are measures that will be considered.

All three concepts would have some short-term effect on Lakeshore Road. Under the recommended concept, truckloads of waste would cross Lakeshore Road to a dedicated internal access road to the facility. The on-site management concepts would require trucks carrying construction materials to enter and leave the existing site at Lakeshore Road.



Computerized visualization of the proposed low-level radioactive waste aboveground mound facility as seen from Newtonville Road, just south of the railway tracks. A light green sliver is all that is visible of the mound.

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

The proposed aboveground mound would occupy about 10 hectares (25 acres) and gradually rise about 8 m (25 feet) to a plateau. The facility would 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 would 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.



Lakeshore Road in Port Granby

How can we be sure the new facility will not be used to store waste from other communities in the future?

The Legal Agreement that defines the Port Granby Project clearly identifies the waste that will be managed at a new Port Granby long-term facility. No waste from outside of Clarington is included in the project. The engineered aboveground mound will not be designed to accept waste on an ongoing basis; it will be covered and closed. The application to the Canadian Nuclear Safety Commission (CNSC) for the facility's licence will also restrict the waste to the quantities in place at the time the project is completed.

What happens next? When will the project finally be completed?

A detailed effects assessment on the highest-ranking concept – Concept II – will begin soon. This assessment will recommend measures to reduce potential adverse effects from the project. Comments will be addressed and detailed engineering studies will begin. The environmental assessment is expected to reach a conclusion in about two years. Licensing, construction and commissioning of the new facility are expected to take an additional five years.