

Workshops on "Alternative Means"

PORT GRANBY
March 29, 2003; 9:30 a.m. – 3:30 p.m.
Call 905-885-0291 to register

PORT HOPE
April 12, 2003; 9:30 a.m. – 3:30 p.m.
Call 905-885-0291 to register

Open Houses
on the environmental assessments
and alternative means

June 2003
Watch for dates in the media
or phone 905-885-0291

Focusing on Valued Ecosystem Components

continued from page 1

are focusing on the selection of VECs to gain an understanding of how the projects could interact with the environment. VECs are features of the environment selected because of their ecological, scientific, cultural, economic, human health, aesthetic or other importance and their potential sensitivity to the projects. One method of assessing the potential effects of a project within a complex environment is to assess its impact on valued and vulnerable environmental features.

Selection of VECs begins with scientists conducting baseline studies of the local

physical and social environment. Preliminary VEC lists are drawn up by these specialists and examined with the public and stakeholder groups such as conservation authorities, First Nations, municipalities, etc. Having completed the first public workshops, the specialists are now reviewing the input and continuing to collect environmental data.

Late this spring, this information will be brought together in an Open House for further public review as the process of assessing the environmental effects of the projects continues.



Low-Level Radioactive Waste Management Office

News

Winter 2003, Volume 1

Field trials will introduce resurvey program

A sample number of properties will be tested for radioactive contamination later this year as the lead-in to a comprehensive radiation resurvey of nearly every house and property in Ward 1, Port Hope.

The Port Hope Property Resurvey Program will use state-of-the-art technology to survey approximately 4,000 properties for indoor and outdoor low-level radioactive waste contamination and indoor radon. The goal is to update and add to property information the LLRWMO has on file so no contamination is missed during the Port Hope Area



LLRWMO Technical Analyst Susanne Williams demonstrates how the resurvey team will take household radiation measurements.

Initiative's clean-up program.

The trials will provide an opportunity to test the resurvey procedures on a representative group of properties. They will also provide a chance to gauge the effectiveness of a communications plan to keep the community well informed about the program. Once the full resurvey program begins, property owners will be contacted and appointments made to have their homes resurveyed.

To learn more about the Port Hope Property Resurvey Program, see page 2.

Focusing on sensitive environmental features

On March 4 and 5, the public and other stakeholders took part in workshops held in Newtonville and Port Hope to offer input and review the process for identifying Valued Ecosystem Components (VECs).

The environmental assessments for the Port Granby and Port Hope Projects

Story continues on page 8

In This Issue

- What the resurvey program will accomplish
- Community character under study
- We've got answers to your questions
- A look at potential VECs

Here's how to reach us:

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Be sure to visit our updated website at www.llrwmo.org

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Radiation resurvey program will update information

The Port Hope Property Resurvey Program will be the most comprehensive examination of radioactive contamination in Port Hope since the Federal-Provincial Task Force on Radioactivity oversaw a similar project between 1976 and 1977. Approximately 3,500 properties in the former town were surveyed to provide assurance that indoor and outdoor gamma radiation and indoor radon met acceptable levels. Remediation activities were undertaken as required.



LLRWMO Technical Analyst Michael Owen uses contamination meters to measure radiation levels on a staircase.

consultation, the LLRWMO will develop a remediation plan for the final cleanup.

Sketching floor plans, setting up monitors

The resurvey program will consist of interior and exterior contamination surveys and an interior radon survey.

Individual resurvey plans will be designed based on the age and location of the house and the existing radiological information on file. Mark Gardiner, Project Specialist with the LLRWMO who is working on the program, says the resurvey will be similar to the work conducted in the 1970s.

“We’ve learned so much over the years about where to look for residual contamination. We’ll scan the most used areas in a house and the areas with the greatest potential for radon. We’ll spend a little more time in houses than during the last survey, sketching floor plans and making drawings.” Unlike equipment used in the last survey, modern radon detection monitors are designed to be left in houses over a period of time to gather information.

Assuring confidence in the results

Also different from the past, is the way data will be compiled: survey information will be collected electronically and downloaded to a

Geographic Information System (map-based) database that will organize the literally hundreds of thousands of individual results. Every square inch of soil in Ward 1 cannot be surveyed, so a statistical sampling method will be developed to assure sufficient sampling is done to accurately outline the extent of contamination. This information, coordinated with historical data and the results of the airborne and roadway gamma

radiation surveys done in 2001, will provide a complete radiological picture of Ward 1.

Later this year, field trials on selected properties will test the process. Once the full resurvey program begins, several teams will conduct the surveys, spending just under a day at most properties. Arrangements with property owners will be made in advance so the public knows exactly what to expect.

Socio-economic studies explore community character

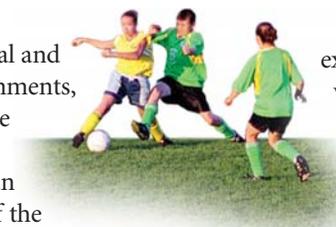
Studying the social and economic environments, in other words the life of the communities, is an important part of the environmental assessments for the Port Hope and Port Granby projects. SENES Consultants Ltd. is gathering information that will be used to predict the potential effects the Port Hope Area Initiative could have on the communities.

The socio-economic studies are developing community profiles by studying various facets of community life including population, property and economic data, recreational and tourism resources, historic and cultural features and agricultural activities. Through interviews, workshops, discussion groups and attitude surveys, the studies are

exploring what residents value most about community life, their attitudes toward the historic low-level radioactive waste

proposals and perceptions about the future, including the impact of the long-term waste management projects. The goal is to gain an understanding of how the proposed projects may affect the lives of people in the communities.

With this information, SENES is developing a list of valued social, cultural and heritage features that may be affected, positively or negatively, by the projects. The next step will be to review the impacts — from the potential for increased employment opportunities during construction to disruption from truck traffic — and recommend ways to manage them.



Examples of features we value in our environment

The photos on these pages illustrate examples of the broad range of potential Valued Ecosystem Components — VECs — that will be identified as part of the environmental assessments for the Port Hope and Port Granby Projects. VECs are used to gauge potential effects on the environment.

From a child drinking water, representing the value we place on human health, to a rural landscape or an amphibian, representing a healthy environment, VECs are selected for their ecological, social and economic value and their potential vulnerability to the effects of the projects.



Human Health:

We all value human health. Construction activities could affect features such as surface water, groundwater and air quality that could affect the health of local residents.



Terrestrial Habitats and Species:

If habitats are disturbed, or food supplies are contaminated, animals can be affected. Predator species like the hawk, for example, exhibit special environmental sensitivities because of their place in the food chain.

Photos: red-tailed hawk, white-tailed deer, mixed wood habitat, Lake Ontario bluff



Shoreline Habitats and Species:

Every species exhibits sensitivities to environmental stressors, but amphibians are especially sensitive to changes in water quality and temperature because of their permeable skin.

Photos: wetland, mallards, salamander, red-winged blackbird



Aquatic Habitats and Species:

Accidental releases of soil into ponds and streams during excavation, transportation and construction activities could affect water quality and disturb aquatic environments.

Photos: Chinook salmon, invertebrates, watercress



Socio-economic:

A community's quality of life is a potential VEC. This can be represented by the peaceful rural quality of Lakeshore Road in Port Granby or by Port Hope's distinctive heritage character. High volumes of construction traffic to and from the proposed waste management facilities could affect these.

Photos: Lakeshore Road in Port Granby, Port Hope's heritage downtown, agricultural activities



Information about potential VECs initially comes from gathering field data. Public input further helps define VECs. Once the VECs are known, the LLRWMO's goal is to identify ways to avoid, reduce or offset potential harmful effects on the environment during the projects.

You asked?

The third set of Alternative Means Workshops for the Port Hope and Port Granby Projects is scheduled for this Spring. What will the workshops accomplish and what role does the public play? This issue of **You asked?** answers these questions and more.

Why are you studying alternative means? Didn't the communities already approve proposed concepts?

Under the *Canadian Environmental Assessment Act*, alternative means of carrying out the projects must be considered. Alternative means are various ways the project purpose can be met, such as alternative ways for transporting the waste, controlling dust during cleanup or long-term monitoring. Each set of workshops has a focus, from providing

opportunities for the public to propose ideas, to developing criteria for evaluating the ideas and generating a short list of feasible alternative means for further study.

What are some of the alternative means ideas the public has proposed?

Close to 75 residents proposed alternative means ideas at the first workshops in Newtonville and Port Hope last June. In October, 80 people took part in the second set of workshops. Here are some of the ideas generated:

- Use augers within tube enclosures to excavate waste;
- Use Plasma Arc technology to reduce volume of waste;
- Investigate polymer encapsulation of low-level waste;
- Dry waste using centrifuge or by filtering, especially Port Hope harbour sediment;

- Ensure no leakage by using perimeter wells, wells between layers, video monitoring and cross-section inspections;
- Use hazardous materials containment tent where materials are excavated.

In addition, residents proposed many alternative ideas for locating the waste facilities including: move none of the waste, place Port Hope waste at Welcome site, move Port Granby waste to Welcome site and move waste to Cameco-owned property at Wesleyville. Some of these ideas would require changes to the Legal Agreement that set up the projects.

When will we have a short list of alternative ways to carry out the projects?

We expect to have a short list of feasible alternative means late this

year. Alternative means brought forward by the public or technical advisors are first checked to make sure they meet the project purpose, that is, they must be local, long-term, environmentally safe, suitably constructed, socially acceptable and appropriately controlled.

Alternatives for the long-term management facilities must be functionally similar to the proposed concepts, in other words, repairable, above-ground, isolated, monitorable and permit waste retrieval. Concepts that meet these criteria are then studied in greater detail to determine if they are technically and economically feasible.

The feasible alternatives will be presented to the Municipalities of Port Hope and Clarington before undergoing detailed environmental assessments.

Project Specialist knows low-level waste inside and out

Few people know as much about the nature of Port Hope's historic low-level radioactive waste as Mark Gardiner. He joined the LLRWMO in 1989 as a final year Trent University physical chemistry major, analyzing soil samples by night and attending school by day. Today, with 14 years of expertise in interim waste management, including work in northern Alberta along the Northern Uranium Transportation Route, Mark is a Project Specialist for the Port



Hope Area Initiative. Responsible for identifying contamination and developing remediation plans, he oversaw the airborne and

roadway gamma radiation surveys, industrial waste characterization studies and is currently working on the resurvey of properties throughout Ward 1, Port Hope.

Raised in Garden Hill, Mark loves the outdoors and downhill skis or mountain bikes at every opportunity.

Port Granby CAC settles into role

The nine-member Community Advisory Committee (CAC), appointed by the Municipality of Clarington, is rapidly bringing itself up-to-date on the Port Granby Project.

Appointed in November, the committee meets monthly at the Clarington Municipal Hall in Bowmanville. So far, members have been busy gathering background information, discussing issues of importance to individual members

and the citizens they represent, learning more about the CAC's role in the federal environmental assessment process and preparing to review technical reports on the Port Granby Long-Term Low-Level Radioactive Waste Management Project. CAC members will participate in workshops and Open Houses arranged by the LLRWMO where they can discuss the issues with other interested citizens.

For more information about the CAC, contact Janice Szwarcz, Clarington Senior Planner and interim CAC chair, at 905-623-3379.