



# Table of Contents

Management .....	1
Director's Message .....	3
Historic Waste Program .....	4
Historic Low-Level Waste .....	4
Port Hope Area Initiative: .....	5
Interim Waste Management Program .....	5
Environmental Assessment Continues .....	6
Property Value Protection Program .....	8
Scarborough (Malvern) .....	8
Fort McMurray .....	9
Northern Transportation Route .....	10
Other Historic Waste Program Activities .....	11
Ongoing Waste Program .....	11
Information Program .....	12
Financial Review and Audit Statement .....	13

The Low-Level Radioactive Waste Management Office was established in 1982 to carry out the responsibilities of the federal government for historic low-level radioactive waste (LLRW) in Canada. The Office is operated by Atomic Energy of Canada Limited through a cost-recovery agreement with Natural Resources Canada, the federal department that provides the funding, and that establishes national policy for LLRW management.

The mandate of the Office includes:

- resolving historic LLRW problems that are a federal responsibility;
- establishing, as required, a user-pay service for the disposal of LLRW produced on an ongoing basis; and
- addressing public information needs concerning LLRW.

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Dear Sirs:

I have the honour to present to you the Annual Report of the Low-Level Radioactive Waste Management Office for the fiscal year ending March 31, 2003.

This report has been prepared in accordance with Section 5.2 of the Memorandum of Understanding between Energy, Mines and Resources Canada (now Natural Resources Canada) and Atomic Energy of Canada Limited, for the operation of the Low-Level Radioactive Waste Management Office.

Sincerely,



R. L. Zelmer, P.Eng., RPP  
Director

## Director's Message

October 2002 marked a significant milestone for the Low-Level Radioactive Waste Management Office. Twenty years had passed since its inception on October 26, 1982. The Office was originally established through a formal direction from the Right Honourable Jean Chrétien (then Minister of Energy, Mines & Resources) to address both historic and ongoing low-level radioactive waste management throughout Canada. To mark the Office's twentieth anniversary, Prime Minister Chrétien commended the Office for the outstanding contribution made to the successful resolution of some of Canada's most complex waste management problems.

The Office again this year marks progress in managing Canada's historic low-level radioactive waste issues by achieving successes, one-by-one, with communities who are partnering to solve these complex, long-term environmental problems.

In the fall of 2002, the Office completed remedial activities at the Waterways Site, Fort McMurray, Alberta at the terminus of the historic Northern Transportation Route. This was the last of nine contaminated sites in Fort McMurray requiring remediation.

The Port Hope Area Initiative is our current major undertaking. It includes the planning of extensive environmental restoration activities and development of long-term management facilities in the Port Hope and Port Granby areas, east of Toronto. I am pleased to report that the first of three phases, the Environmental Assessment and Licensing phase, is advancing well and has passed several important milestones.

The Port Hope Area Initiative received international recognition and commendation at the Forum for Stakeholder Confidence, held October 2002 in Ottawa, sponsored by the Radioactive Waste Management Committee of the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD). Here, as in other endeavours, the Office staff worked closely with Natural Resources Canada (NRCan), the Forum's host, on this successful event. The success of the Port Hope Area Initiative largely rests on the continued support of agreement signatories, the municipalities of Port Hope and Clarington and the federal government, and communication and cooperation between the Office and the community.

I extend to all Office staff and colleagues, past and present, my congratulations on the successful achievement of the twenty-year milestone and also my thanks in appreciation of each individual's unique contribution to this success.



R. L. Zelmer, P. Eng., RPP  
Director

## Historic Low-Level Waste

Canadian low-level radioactive waste can be traced as far back as the early 1930s with radium mining in Port Radium, on Great Bear Lake, in the Northwest Territories. In 1942, refining of radium/uranium, (sent by barge, rail and air, over 5,000 km from the North), commenced in Port Hope. The refining operations continued in Port Hope for many years and uranium refining continues there today.

The accepted waste management practices in the early years of radium and uranium production were not as comprehensive as they are today and, therefore, undetected contamination of buildings and soil in and around the community surrounding the refinery and along the transport routes occurred. This contamination was discovered and recognized in the early 1970s. A radiation reduction program was immediately instituted encompassing not only the areas of Port Hope but also the mining communities situated in Ontario and Saskatchewan.

Other historic waste occurrences have since been found along the water transportation route spanning from the original mine sites in the Northwest Territories. There were also discoveries of LLRW in other Canadian communities including Surrey (British Columbia), Scarborough (Ontario) and Fort McMurray (Alberta).

Historic waste is LLRW that was managed in the past in a manner that is no longer considered acceptable, for which the current owner cannot reasonably be held responsible, and for which the federal government has assumed responsibility.

Canada has about 1.5 million m<sup>3</sup> of historic LLRW, mostly stored in interim waste management facilities in the Port Hope area. Almost 100,000 m<sup>3</sup> is estimated to be at all other historic waste sites in Canada. The discovery of new sites or improved delineation and characterization of present sites are the only situations where increases are expected to add to the volume of historic LLRW.

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## What is low-level radioactive waste?

**I**n Canada, low-level radioactive waste (LLRW) is defined by exclusion. If a waste is radioactive, but is neither nuclear fuel waste (also called high-level waste) nor uranium mine and mill tailings, then it is classed as LLRW. Most of Canada's LLRW accumulated to date is historic waste consisting of contaminated soil generated over the past 70 years. Most LLRW today arises from activities associated with nuclear electricity generation, from nuclear research and development, and from the production and use of radioisotopes in medicine, education, research, agriculture and industry.

## Port Hope Area Initiative: Interim Waste Management Program

### BACKGROUND

In Port Hope, LLRW is located at four facilities licensed by the Canadian Nuclear Safety Commission (CNSC), at nine major unlicensed sites, and on various other properties, under regular inspection and monitoring by the Office.

The Office also monitors new construction in Port Hope under the Construction Monitoring Program (CMP), jointly operated by the Office and the Municipality of Port Hope to prevent the spread of contaminated soil. The Office tests soil at proposed construction sites and transfers contaminated soil to the Pine Street Extension Temporary Storage Site (PSE TSS). All projects requiring building permits are automatically referred to the CMP.

### 2002-2003 ACTIVITIES

This year has been one of the busiest years with over 500 radiological letters issued, 112 Radon/Gamma surveys and 117 m<sup>3</sup> of contaminated fill placed in the temporary storage site. This is in addition to the Interim Waste Management Program's current focus to support the Municipality of Port Hope's plans to construct a new water treatment plant at the Waterworks site on Lake Ontario.

The LLRWMO will provide radiological monitoring and cleanup activities in support of this municipal project. Site assessment activities were commenced with the LLRWMO conducting radiological monitoring and sampling.

Boreholes were drilled, sampled and, where applicable, monitored for above background levels

of gamma radiation. Technical work involved field sampling, analysis campaigns and site-specific risk assessments.

The volume of marginally contaminated soil requiring removal from the Port Hope Waterworks expansion site was estimated based on the gamma radiation subsurface analysis. Although some of the gamma radiation readings from the subsurface analysis are greater than the normal range of background radiation, most are well below. For planning purposes, arrangements were made with the Municipality of Port Hope to communicate weekly on the status of the Waterworks expansion project.

A mound design was prepared for the storage of low-level radioactive waste (LLRW) on the Waterworks site.

Discussions were initiated with the CNSC, the Municipality of Port Hope and Cameco on the possible use of the CNSC-licensed site on the Centre Pier, currently leased from Port Hope to Cameco, for temporary storage of about

17,000 m<sup>3</sup> of LLRW contaminated soil from the Waterworks site. Remedial work within the construction site of the new Water Treatment Plant Site commenced in February 2003. The new

Water Treatment Plant Site was prepared to include the installation of a health physics trailer and site access control zones, and the construction of temporary on-site access roads. Approximately 2,500 m<sup>3</sup> of clean overburden soil was removed from the construction site, and placed into temporary storage in the western portion of the new Water Treatment Plant Site. Completion of work by the LLRWMO is expected in the summer of 2003.

#### 2002-2003

The Construction Monitoring Program (CMP) & Property Compliance Program (PCP) activities were as follows:

<b>PCP-originated Radon/Gamma Surveys</b>	<b>112</b>
<b>Soil Volume to TSS (m<sup>3</sup>)</b>	<b>117</b>
<b>Radiological Status Letters</b>	<b>520</b>

## Port Hope Area Initiative: Environmental Assessment Continues

### BACKGROUND

In the Legal Agreement for the Port Hope Area Initiative (PHAI), the federal government committed \$260 million to clean up and build long-term management facilities for LLRW in the area.

The federal government's commitment supports two community-recommended projects:

- **the Port Hope Long-Term Low-Level Radioactive Waste Management Project (two proposed facilities in the Municipality of Port Hope and the remediation of sites containing LLRW, marginally contaminated soils and specified industrial wastes located in the former Town of Port Hope); and**
- **the Port Granby Long-Term Low-Level Radioactive Waste Management Project (one proposed facility in the Municipality of Clarington).**

Over 1 million m<sup>3</sup> of LLRW and contaminated soil are located in the Port Hope area as a result of radium and uranium refining that began in the 1930s. This refining was done by a federal Crown corporation, Eldorado Resources Limited, and its private sector predecessors. The federal government has accepted responsibility for the long term management of this waste.

The majority of the waste is managed at two facilities, the Port Granby Waste Management Facility in the Municipality of Clarington and the Welcome Waste Management Facility in the Municipality of Port Hope. Both facilities are owned and managed by Cameco Corporation and licensed by the CNSC. The remaining material, mostly contaminated soil, is located at major sites including the Pine Street Extension Temporary Storage Site (PSE TSS), under

licence from the CNSC, and at major sites and many small scale unlicensed sites within the Municipality of Port Hope.

The Legal Agreement between the municipalities and the Government of Canada calls for three long-term management facilities: one in Clarington at the Port Granby Waste Management Facility, two in Port Hope, one near Highland Drive, the other at the Welcome Waste Management Facility. Concepts for these facilities vary according to the community input received, the site conditions, and the character and volume of the waste to be contained. Upon receiving regulatory approval, the PHAI will see area wastes cleaned up and managed in an environmentally safe manner. The management concepts include the following features:

- **above-ground;**
- **the waste will be isolated from the underlying soil and groundwater, and from the surface;**
- **the facility will be monitored in the long term; and**
- **the waste can be retrieved.**

### CONDUCTING THE ENVIRONMENTAL ASSESSMENT

Over the next four years, planning, engineering, environmental studies and public input will refine the community concepts for LLRW management. After the environmental assessments and licensing is complete, another five to seven years will be required to construct the facilities, consolidate the wastes, and clean up and restore waste locations.

### 2002-2003 ACTIVITIES

The PHAI continued through the environmental assessment as required under *The Canadian Environmental Assessment Act*. Five environmental baseline studies (atmospheric,

## Port Hope Area Initiative: Environmental Assessment Continues

aquatic, geophysical, socio-economic and terrestrial) were initiated to collect environmental data. Significant effort was also devoted to developing and providing preliminary lists of Valued Ecosystem Components (VECs).

A primary focus has been the development of Alternative Means, using public input received through public workshops and open houses.

Alternate Means are different ways of carrying out the projects that are technically and economically feasible, local, and provide for management of the wastes in the long term while being functionally similar to the proposed project.

Outputs from other engineering and technical activities included peer reviews of the working draft reports of the Port Hope Harbour Sediment studies and the Cleanup Criteria Specification study, and off-site investigation in the vicinity of the former Coal Gasification Plant.

Environmental Baseline Study consultants and Office staff participated in a series of public and practitioner Workshops to present and discuss their preliminary lists of Valued Ecosystem Components (VECs).

The environmental assessments include several technical studies of environmental conditions. Those completed or undertaken include:

- **an aerial gamma ray survey of approximately 2,100 kilometres using low-flying helicopters;**
- **a roadway survey of approximately 320 kilometres using truck-mounted radiation detectors to study the primary transportation routes used in the past for waste transport within the study area;**
- **a technical evaluation of the shoreline**

**stabilization design concept for the proposed Port Granby Long-Term Waste Management Facility;**

- **an investigation of the potential impacts of thorium-230, a component of the waste;**
- **an examination of the existing groundwater quality and flow through the Port Granby Waste Management Facility;**
- **site assessments of four historic industrial properties in the Municipality of Port Hope;**
- **a comprehensive review of studies, applicable regulations, scientific research and past public input to assist in developing criteria for determining when contaminated sites have been adequately cleaned up; and**
- **a telephone survey of more than 500 households and discussions with stakeholders and focus groups to determine local people's attitudes about the Port Hope Area Initiative.**

Public input was solicited during open houses, at Expo'02, at the LLRWMO store-front office, and through regular update meetings with community groups and Municipal governments. This is also complemented by quarterly newsletters and bi-weekly newspaper articles. These venues gave the public an opportunity to obtain information, review material and ask questions about the environmental assessments for each of the Port Hope and Port Granby Long-Term Low-Level Radioactive Waste Management projects.



## Port Hope Area Initiative: Property Value Protection Program

### BACKGROUND

For the various stakeholders involved in the Port Hope Area Initiative, the Property Value Protection (PVP) Program functions as an integral part of the Port Hope and Port Granby projects.

Established through the Legal Agreement of March 2001, the PVP Program reflects the commitment of the Municipal Councils of Port Hope and Clarington and the Government of Canada to mitigate potential interim property value effects that might arise from the Initiative. The PVP Program compensates owners of residential, commercial or industrial properties in designated areas of the Municipalities of Port Hope and Clarington who realize financial loss on the sale of their property, loss of rental income or mortgage renewal difficulties as a result of the Initiative.

### 2002–2003 ACTIVITIES

Ongoing communication with property owners, the Municipalities and real estate professionals has been the Program's hallmark. A Program Office has also been

established in downtown Port Hope, where experienced staff explain the Program and provide assistance to property owners making a claim.

The Office also took many opportunities to increase awareness of the Program through presentations to community groups and the real estate sector. This included supporting the communications activities of the broader Initiative at trade shows, and open houses such as Expo '02 and other public events. Among key outreach initiatives were presentations to the Cobourg-Port Hope and Durham Real Estate Boards, the Ontario Real Estate Association and the Institute of Municipal Assessors' Eastern Region Conference.

Real estate agents reported that the Program has brought stability to the marketplace by providing property owners with a sense of security that their investment in their property will be protected. Municipal partners frequently expressed the view that the PVP Program is perceived as an "insurance policy."

## Scarborough (Malvern)

### BACKGROUND

The Malvern community is a planned urban development located in the northeastern part of the City of Toronto. Construction in the community began in the early 1970s and continues to this day. It is home to more than 50,000 people.

Radium-impacted soil was discovered in 1980 at McClure Crescent, in the Malvern community, at the site of a former farm where incineration and processing of radium contaminated scrap materials from a luminescent dial operation had taken place. The LLRWMO completed a full-

scale cleanup of the area in 1996, including construction of a temporary storage mound located at Passmore Avenue.

### 2002-2003 ACTIVITIES

Environmental Monitoring (gamma radiation, radon gas, groundwater, physical inspection) is conducted at the Passmore Temporary Storage Site. Results of this monitoring indicate that there are no adverse impacts on the environment surrounding the site. Results of the monitoring are provided to the City of Toronto (now encompassing the former city of Scarborough) and are available at the Malvern Public Library.

## Fort McMurray

### BACKGROUND

Fort McMurray is a city of approximately 40,000 in northern Alberta, about 450 km northeast of Edmonton.

Beginning in the 1930s, uranium ore and uranium concentrates were shipped by barge from the Port Radium mine on Great Bear Lake via a system of lakes and rivers to a series of docking sites in Fort McMurray. From there, the ore and concentrates were shipped by rail to the Eldorado Refinery in Port Hope. During the summer of 1992, the LLRWMO started investigating transfer points along the 2,200 km water route from Port Radium to Fort McMurray. The LLRWMO conducted this work as part of its mandate to address the Canadian government's responsibilities relating to the management and resolution of historic low-level radioactive waste problems. During these investigations, elevated levels of radioactivity were found at various sites. It was suspected that these levels were the result of spillage of uranium ores and concentrates that had occurred while loading materials into the railway boxcars destined for the Port Hope refinery. From 1993 to 1996, the Office moved approximately 31,000 m<sup>3</sup> of mildly contaminated soil from several sites in Fort McMurray, Alberta, to an engineered containment cell at the local landfill regularly monitored by the Office.

### ACTIVITIES 2002-2003

During the year, all radioactively contaminated soils associated with the historic uranium transportation network were removed from the Waterways site. Operations associated with the excavation and haulage of the contaminated soil spanned a five-week period and was completed by October 2002. All removed material was placed into the dedicated long-term management facility (LTMF) at the Beaconhill Landfill site. Ongoing verification sampling and analyses conducted throughout the cleanup program

confirmed that all historic radioactive contamination had been removed from the Waterways site. Because of the approaching winter conditions, final site restoration activities at both the Waterways property and the LTMF sites were deferred until the spring of 2003.

The following is a summary of work to date.

#### *Contaminated Soil Excavation*

At completion of the soil excavation operation, an estimated 12,400 m<sup>3</sup> of impacted soil had been removed and transferred to the LTMF. All soil was shipped from the site using securely covered dump trucks and trailers, observing protocols typically applied by the LLRWMO for such activities.

#### *Cleanup Verification*

The soil excavation program was supervised on a full-time basis by LLRWMO staff who provided on-going direction to equipment operators with respect to the required extent of removal. Upon completion of the excavation in any given work area, the LLRWMO staff conducted a comprehensive verification program to confirm that the remedial objectives had been met.

#### *Environmental, Health and Safety Monitoring*

LLRWMO staff carried out a program of environmental, health and safety monitoring throughout the work. Monitored parameters included gamma radiation, gamma dose, surface contamination, long-lived alpha in air, radon gas, radon progeny, and suspended particulate in air. Throughout the project a working group comprised of federal, provincial and local governments and agencies, assisted the LLRWMO. In addition, the LLRWMO worked closely with the public by conducting Open Houses and publishing project information and activities.

## Northern Transportation Route

### BACKGROUND

In the early 1990s, the Office identified over 47,000 m<sup>3</sup> of uranium-contaminated soil at approximately 20 sites along the Northern Transportation Route (NTR), the 2,200 km route used from the 1930s to the 1960s to ship uranium and radium ores and concentrates from the Northwest Territories to Alberta.

Where the potential for unacceptable radiation exposure in the short term existed, the Office removed small amounts of uranium ore and concentrates at such sites and, in one case, removed about 200 m<sup>3</sup> of contaminated soil to a local temporary storage site. In 2001–02, steps were taken to advance the characterization and remediation of certain historic waste sites along the NTR. This project is designed to address the historic waste sites identified along the NTR. Communities in the Northwest Territories along the route where historic radioactive waste sites were found include Fort Smith, Fort Fitzgerald, Tulita and Hay River.

### 2002-2003 ACTIVITIES

In June 2002, staff from the LLRWMO visited the Hamlet of Tulita, NWT, to meet

with members of the Tulita Uranium Working Group representing the Tulita Land Corporation. The purpose of the meeting was to review the status of cleanup activities that have taken place since 1992, including the most recent cleanup in August/September 2001, and to discuss potential options for the relocation of the Tulita temporary storage mound. An inspection of the mound was conducted during the visit and no problems or issues were identified.

During October 2002, LLRWMO staff conducted a field visit to Fort Smith, NWT, to inspect the temporary storage mound. The mound was found to be in good repair and no corrective actions were required. An inspection in Fort Fitzgerald was also completed during the field visit.

In February 2003 the LLRWMO assisted in the dismantling of the Radium Gilbert, and initiated the removal and management of contaminated concrete from the vessel.

Staff from the LLRWMO continue, on behalf of NRCAN, to provide technical support to the Interdepartmental Committee and the Canada Deline Uranium Table (CDUT).

The Office's official website was redesigned and updated. It provides a wealth of information on LLRW in addition to listing the Office's activities across Canada. Many of the Office's reports and studies are available on line.

[www.llrwmo.org](http://www.llrwmo.org)

## Other Historic Waste Program Activities

### 2002–2003 ACTIVITIES

The LLRWMO responded to numerous requests for disposal of radium dial artifacts. These requests were received from companies and institutions all across Canada. These included aircraft maintenance companies located in Ontario, a community college in Newfoundland, and a laboratory in Ottawa.

The dials were transferred to the LLRWMO storage building at the Chalk River Laboratories.

The LLRWMO conducted a detailed inspection of its drums containing LLRW in storage at the Chalk River Laboratories and prepared a container action plan.

## ONGOING WASTE PROGRAM

### BACKGROUND

Electrical utilities, nuclear research organizations, nuclear fuel manufacturers, and the producers and users of medical and other radioisotopes are some of the producers of “ongoing waste.” They are held responsible for the approximately 4,000 m<sup>3</sup> of waste produced each year. There are about 600,000 m<sup>3</sup> of this waste in Canada.

The Office assists Natural Resources Canada in their development of policies and strategies for the long-term management of ongoing waste. The Office also assisted Natural Resources Canada in meeting its commitments to international organizations such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA) of the Organization for Economic Co-operation and Development (OECD).

### 2002–2003 ACTIVITIES

The Office was appointed by Natural Resources Canada to act as the official focal

point (country coordinator for Canada) to support the IAEA’s initiative on the Net-Enabled Waste Management Database (NEWMDB). The database is an international repository of information on radioactive waste management in Member States of the IAEA.

To the extent practicable, the information in the database takes into account the reporting requirements of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. The database is also intended to support the development of indicators for sustainable development for radioactive waste management, pursuant to Agenda 21 of the United Nations Conference on Environment and Development (1992). The Office will assemble data from nuclear utilities, AECL, uranium production companies and other waste generators. Consultations are planned with major stakeholders and an analysis of the implications for Canada has been initiated.

**I**n conjunction with NRCan, a 22-minute video was produced detailing the Port Hope Area Initiative and outlining the historic accumulation of low-level radioactive waste in the area. The video includes a number of interviews with local residents, the Mayor of Port Hope and LLRWMO staff. Many local area residents’ concerns are voiced, and addressed by senior Office technical staff. This video, in VHS, CD and DVD formats, is available at local libraries in Port Hope and Clarington and through the LLRWMO.

## I N F O R M A T I O N P R O G R A M

The LLRWMO provides information on low-level radioactive waste in Canada, and on its management and disposal. The National Office in Ottawa and the Technical Services Office and the Project Information Exchange Offices in Port Hope, provide answers every day to inquiries received by phone, mail and in person. These offices have numerous publications on LLRWMO activities and on low-level radioactive waste management in Canada.

For more information,  
visit the Office's  
Web site at  
[www.llrwmo.org](http://www.llrwmo.org)

The Office responded to requests for information from people across Canada, and abroad. The website receives an average of 45 visits per day.

The information program for the Port Hope Area Initiative for the past fiscal year included the creation and publication of a newsletter detailing the project's activities and mailed out to over 13,000 local residents on a quarterly basis. Another important way the LLRWMO updates and involves the community is through workshops and open houses. Over the past year, the public has attended workshops on the features of the natural and social environment that make up Valued Ecosystem Components and on the Alternative Means process that explores various ways to carry out the Port Hope and Port Granby projects that comprise the PHAI. Public input has been incorporated into each of these steps of the environmental assessments.

### 20<sup>th</sup> Anniversary of the LLRWMO

Twenty years ago, on October 26, the federal government approved establishment of a new office to carry out the government's responsibilities for low-level radioactive waste management in Canada. AECL was assigned the responsibility of operating the Office, designated the Low-Level Radioactive Waste Management Office (LLRWMO).

Through a cost recovery agreement with Natural Resources Canada, AECL

continues to provide the staff, support services, and facilities to develop and implement LLRWMO programs and projects.

The Office has successfully directed and overseen remediation activities on numerous projects, varying in size, posing significant environmental challenges across Canada. On the sidebar are some of the projects the Office has completed or is in the process of remediating.



#### Scarborough 1982 - 1996:

- Reesor Road
- McClure Crescent
- McLevin Avenue
- Malvern Town Centre
- Passmore Mound

#### Surrey 1984 - 2000:

- Thornton Yard
- Anvil Way

#### Fort McMurray & NTR 1992 - Present:

- NTR surveys
- Fort McMurray sites
- Beacon Hill Mound
- CN Waterways
- closure and licensing

#### Port Hope 1982 - Present:

- Localized cleanups
- LLRW consolidations
- Construction Monitoring
- Interim Waste Management
- Port Hope Area Initiative

#### Toronto sites

Radium recovery (ongoing)

## F I N A N C I A L   R E V I E W

PROGRAM AREAS	2001-2002	2002-2003
– TOTAL EXPENDITURE	(\$ THOUSANDS)	
<b>HISTORIC WASTE PROGRAM</b>		
<b>PORT HOPE AREA INITIATIVE</b>		
Port Hope Area – Long Term Storage Project	3 414	6 257
Port Hope Area – Property Value Protection Program	361	321
Port Hope Interim Waste Management	546	627
<b>Subtotal: Port Hope Area Initiative</b>	<b>4 321</b>	<b>7 205</b>
<b>NORTHERN SITES INITIATIVE</b>		
Fort McMurray	473	1 178
Northern Transportation Route	117	55
<b>Subtotal: Northern Sites Initiative</b>	<b>590</b>	<b>1 233</b>
<b>OTHER HISTORIC WASTE INITIATIVE</b>		
Scarborough (Malvern)	21	29
Historic Waste at Other Locations	78	47
<b>Subtotal: Other Historic Waste Initiative</b>	<b>99</b>	<b>76</b>
<b>OTHER MANDATED ACTIVITIES</b>		
Ongoing Waste Program	21	14
Information Program	33	54
<i>Year-End Credits:</i>		
Payroll Variance Credit	(17)	(34)
Surrey – Invoice Accrual Reversal	(26)	
<b>Subtotal: Other Mandated Activities</b>	<b>11</b>	<b>34</b>
Less Cost Recovery from Ontario Scarborough (Malvern)	(21)	(28)
<b>TOTAL EXPENDITURES FOR NRCAN FUNDING</b>	<b>5 000</b>	<b>8 520</b>

*Note: Figures are rounded to nearest thousand.*

## A U D I T   S T A T E M E N T

***AECL is audited annually by the Office of the Auditor General and Ernst & Young. The audit is performed in accordance with generally accepted auditing standards. As part of AECL, the LLRWMO's financial results are within the scope of that audit and covered by the opinion expressed in the audit report.***

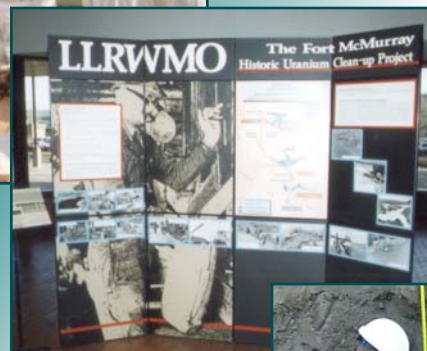
Natural Resources Canada funds the operation of the LLRWMO through a cost-recovery agreement (Memorandum of Understanding) with Atomic Energy of Canada Limited. The major planning document is the Office's annual Business Plan, submitted to NRCAN for approval prior to the start of each fiscal year. The Business Plan identifies how NRCAN priorities can be accommodated with the available funding. Adjustments to priorities during the year are accomplished through joint quarterly progress reviews by the Office and staff of NRCAN's Uranium and Radioactive Waste Division.

The Office's accounts and financial control system conform with AECL's financial policies and control. These provide assurance that reliable and accurate financial information is available on a timely basis. The financial statements in this annual report present the costs of operation of the Low-Level Radioactive Waste Management Office up to March 31, 2003.

The table depicts how NRCAN funding was used for the Office's mandated areas in 2002–2003 and the previous year.

# *20<sup>th</sup> Anniversary*

*of the  
Low-Level Radioactive Waste Management Office*



*Twenty years  
of  
working toward community solutions*