

# *Atlantic PIRI in 2006* **Focus on Process**

**ANNUAL REPORT**

*of the Atlantic Partnership  
in RBCA Implementation*

*April 2007*





# ATLANTIC PIRI in 2006

“Focus on Process”

**Annual Report of the  
Atlantic Partnership In RBCA Implementation**

April 2007



Document prepared by Infoplexus Inc. Moncton N.B.

# ATLANTIC PIRI in 2006

## Executive Summary

The year 2006 was a banner year for Atlantic PIRI (Partnership in RBCA Implementation where RBCA is Risk Based Corrective Action). Benchmark advances were achieved with the Atlantic RBCA technical tools, in Provincial implementation of the Atlantic RBCA approach, with training on new aspects of the technical tool and in communications and outreach.

Atlantic PIRI is the pre-eminent forum in Atlantic Canada for discussion of contaminated site management issues and workable management approaches. With a mandate to develop and maintain the Atlantic RBCA technical tools, and a commitment to continuous improvement, Atlantic PIRI expanded the toolkit to include new guidance on assessing soil vapour and indoor air monitoring, and updated guidance for laboratories.

Harmonization of management processes is facilitated by the Atlantic PIRI forum, as it creates an opportunity for Regulators from the Atlantic Provinces to share best practices and discuss approaches and programs. In 2006, input from Atlantic PIRI members contributed to development of new regulations in PEI; to progress towards a common approach on third party notification; and to increased harmonization of contaminated site management documentation for the region. The achievements of this year show how well the Atlantic PIRI process works to advance all aspects of contaminated site management.

Two national organizations acknowledged the Atlantic PIRI model of cooperation and harmonization, and its success in developing and implementing Atlantic RBCA. Atlantic PIRI was recognized as an example of *Best Practices* by the Federal Community of Regulators, and also won the 2006 *Brownie Award for Policy and Programs* from the Canadian Urban Institute.

For people in Atlantic Canada, the success of the Atlantic PIRI process is demonstrated by the fact that over 2300 contaminated sites have been remediated and returned to productive use since 1999 without a single re-opened file. Atlantic PIRI continues to build capacity in contaminated site management, with 67 site professionals having received advanced training with the technical tools in 2006.

Atlantic PIRI's objectives for 2007 include a 5-year review of the scientific basis of the Atlantic RBCA software; collaborative upgrading of the ecological screening tool; evaluation of the potential of modeling risk for metals using RBCA; planning for more accessible technical training; further harmonization of management documents and processes; and outreach to organizations and government agencies.

# 2006 Accomplishments

## Atlantic PIRI and the Atlantic RBCA Implementation

- Over 2600 contaminated sites remediated since 1999, without a re-opened file
- Award from the Federal Community of Regulators for *Best Practices*
- Canadian Urban Institute 2006 *Brownie Award for Policy And Programs*

## Continuous Improvement of the Atlantic RBCA Toolkit

- *Guidance on Soil Vapour and Indoor Air Monitoring Assessment* (Appendix 9 of the *User Guidance*) developed by an Atlantic PIRI Task Group
- Task Group updated the *Guidance for Laboratories v2*
- Updated *User Guidance for Atlantic RBCA v2*

## Harmonized Management Processes

- New *Petroleum Hydrocarbon Remediation Regulations* in P.E.I. establish Atlantic RBCA in regulation
- Completed the gap analysis of legislation in Newfoundland and Labrador
- Agreed on an approach for third party notification
- Initiated harmonization of contaminated site management documentation

## Education and Outreach

- Advanced training for 67 site professionals with the updated toolkit
- Restructured and added ten new pages to the Atlantic RBCA website, which received over 51,000 visits, resulting in more than 34,000 downloads of documentation

### Acc



*Best Practices*

Award from the Community of Federal Regulators



*Brownie for Policy and Programs*

Canadian Urban Institute

## Extending the Reach of the Atlantic RBCA Technical Toolkit

The centerpiece of the Atlantic RBCA toolkit is the software model that evaluates risks associated with petroleum hydrocarbons based on typical conditions in Atlantic Canada. While this tool is all that is needed in most cases, some sites present conditions that require additional analysis. In 2006, Atlantic PIRI Task Groups composed of experts from across the country developed two significant new tools for the Atlantic RBCA Toolkit: the *Guidance on Soil Vapour and Indoor Air Monitoring Assessment* provides direction on assessing impacts of subsurface vapour transport and intrusion into buildings. An update of the *Guidelines for Laboratories v.2* addresses the analysis of petroleum hydrocarbons in water and soil. To accommodate these new tools, the *User Guidance Documentation for Atlantic RBCA v2* was updated and an advanced training session was held to introduce the new tools to 67 site professionals.

Atlantic PIRI is committed to continuous improvement of the technical tools. Atlantic PIRI Task Groups bring the knowledge of leading national and international researchers to bear on key issues, with the goal of making Atlantic RBCA more versatile and flexible. In 2007, Atlantic PIRI Task Groups will upgrade and expand the Tier I screening criteria to include ecological receptors and update the ecological screening tool, providing additional guidance on ecological risk assessment; and will consider the applicability of the Atlantic RBCA software model for risk analysis of metals.

Advances in science can affect the use of the software model, particularly in the determination of site-specific risks. To ensure that the science in the model is up-to-date Atlantic PIRI reviews the software model on a five-year cycle. This review will get underway in 2007, a timing that will enable Atlantic PIRI to assess revisions to the Canada-Wide Standards for Petroleum Hydrocarbon Contaminants in Soils (CWS-PHC), which are anticipated in the spring resulting from the Canadian Council of Ministers of the Environment's 5-year review. The Atlantic Provinces are committed to ensuring that Atlantic RBCA provides protection for people and the environment that meets or exceeds the CWS-PHC.

In view of harmonization at the national level, in 2007 Atlantic PIRI plans to make a representation to Health Canada and to meet with the Federal Contaminated Sites Working Group. Further advanced training sessions on implementation of the *Guidance on Soil Vapour and Indoor Air Monitoring* are planned, as well as investigation of on-line, e-learning options to make general training with the Atlantic RBCA toolkit more accessible.

### Atlantic Risk Based Corrective Action

Atlantic RBCA is based on the science of risk-analysis and risk-management on contaminated sites. A software tool, combined with guidance on specific technical issues and provincial management tools, form the Atlantic RBCA toolkit.

## Harmonized Management Processes

Engagement of Regulators from each of the Atlantic Provinces is at the heart of the success of the Atlantic PIRI process. Implementation of Atlantic RBCA is the responsibility of the Regulators in each province. The Atlantic PIRI forum allows the Regulators to share ideas and to benefit from the perspective of representatives from Environment Canada, the petroleum industry, and regional consultants. Working together, the Regulators learn from each other's best practices, are more effective in developing tools and processes, and are able to accomplish more with their resources.

The benchmark event in Atlantic RBCA implementation in 2006 was Prince Edward Island becoming the first to establish Atlantic RBCA in regulation. P.E.I.'s new *Petroleum Hydrocarbon Remediation Regulations* of the *Environmental Protection Act* gives legal standing to Atlantic RBCA and risk-based management. The effectiveness of Atlantic RBCA implementation is revealed in the numbers: more than 2600 Provincial and Federal sites files have been closed using Atlantic RBCA since 1999. The actual total is higher, as some provinces have only tracked Atlantic RBCA site closures since 2004, or do not compile Province-wide results.

To support such initiatives, Atlantic PIRI commissioned gap analyses of the legislation in each of the provinces, to identify barriers to redevelopment of contaminated lands. The last of these analyses, for Newfoundland and Labrador, was completed in 2006. The gap analyses give each Province a starting place to review and amend their legislation to facilitate brownfield redevelopment. Atlantic PIRI will develop an implementation plan identifying areas for harmonization in approaches to brownfield redevelopment.

Much discussion has been held within Atlantic PIRI on when and how to notify third parties who might be affected by contamination that has migrated onto their property. In 2006, the group reached agreement that notification based on risk criteria was consistent with the science-based approach of Atlantic RBCA.

Atlantic PIRI Regulators are reviewing the *User Guidance* to identify areas where common approaches can be developed and those where provinces should retain discretionary powers. They are also developing templates for key Atlantic RBCA management documents - such as site closure reporting (expected in 2007), third party notification, and voluntary remediation - and for management processes such as site registries.

### Harmonized Implementation of Atlantic RBCA

Each of the Atlantic provinces has their own contaminated site management guidelines, which incorporate the Atlantic RBCA risk-assessment and risk management approach. The Atlantic PIRI process has facilitated harmonization in definitions of site professionals, processes to manage and reduce the frequency of home heating oil spills and approaches to limited remedial action.

## Working Together to Promote Brownfield Redevelopment

Effective and efficient contaminated site management approaches, such as those the Atlantic Provinces have created with the Atlantic RBCA toolkit, are key to the development of practical strategies for redevelopment of contaminated sites. Increasingly, the under-utilized and under-performing properties known as “brownfields” are being recognized as neglected opportunities for community development. One of the challenges of encouraging brownfield redevelopment is addressing the requirements and concerns of a number of public and private sector stakeholders, at the same time as environmental requirements. The reward for tackling that challenge is the opportunity of scoring a “win” for all stakeholders from brownfield redevelopment.

The National Round Table on Environment and Economy (NRTEE) released its *National Strategy for Brownfield Redevelopment in Canada* in 2003. Atlantic PIRI endorses the *Strategy* and Atlantic RBCA provides ideal management and technical tools for cost-effective and efficient site-specific remediation. Atlantic PIRI has a role to play increasing awareness of the opportunities that brownfields represent and of how the Atlantic RBCA tools apply.

Atlantic PIRI also supports provincial initiatives to build awareness of brownfield opportunities and issues. In 2006, Nova Scotia’s Department of Environment and Labour hosted a *Science Forum on Brownfield Redevelopment* that attracted a large and varied audience in Halifax. In New Brunswick, staff of the Environment Department has been building bridges with other departments, an effort that increases understanding and supports for the discussion, in 2007, of the *New Brunswick Brownfield Initiative’s Working Group report on Liability Issues*.

In 2007, Atlantic PIRI will promote awareness of the opportunities of brownfields through a presentation to a national meeting of the Canadian Land Reclamation Association, an anticipated presentation to the Canadian Urban Institute’s national conference *Brownfields 2007* and the anticipated roll-out of the *New Brunswick Liability Working Group* recommendations.

### Engagement with Brownfield Initiatives

Atlantic PIRI is one of the founding members of the Canadian Brownfield Network (CBN), the national organization that is working to implement the recommendations of the NRTEE *National Brownfield Strategy*. Atlantic PIRI members sit on the CBN Advisory Panel and on the Brownfield Task Force of The Quebec Business Council on the Environment.

# Objectives for 2007

## Review of the Atlantic RBCA Software Tool

- Atlantic PIRI will review recent advances in the science and toxicology and initiate an update of the software model, if required.

## Atlantic PIRI Technical Task Groups

- Atlantic PIRI Task Groups are working to develop a more comprehensive ecological screening tool and guidance; and
- assessing the potential for modeling risks for metals in soil using Atlantic RBCA.

## Enhancing Harmonization

- A harmonized Site Closure Report, which retains Provincial discretion in key areas, is expected to be completed in 2007.
- Develop an implementation plan for a harmonized approach to brownfield redevelopment.
- Discussion of harmonized contaminated sites regulations is on the agenda for the meeting of the Council of Atlantic Environment Ministers in 2007. With the Ministers agreement, Atlantic PIRI will start development of the framework for a harmonized approach.

## Promoting Options to Address Liability

- Atlantic PIRI will work with its Regulatory members to start discussion with government department stakeholders in each province on the options for addressing contaminated site liability issues.

## Continuing Training for Site Professionals

- Advanced training seminars with the Atlantic RBCA software will continue in 2007.
- Proposals for E-learning on basic Atlantic RBCA concepts will be evaluated in the spring and a decision made about pursuing this approach.

## Communications and Outreach

- Presentations to Provincial and Federal agencies, and regional and national organizations, about the Atlantic PIRI approach, Atlantic RBCA and the opportunities inherent in brownfield redevelopment.
- The Atlantic RBCA website design will be updated to reflect Atlantic PIRI's philosophy of continuous improvement.