

International Overview of the Practices on Contaminated Sites in Canada Session A

7TH MEETING OF THE INTERNATIONAL COMMITTEE
ON CONTAMINATED LAND

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Développement durable,
Environnement
et Parcs

Québec 

CANADA

- Europe : 10, 392 855 km²
- Canada : 9, 984 670 km²

- France : 543 965 km²
- Québec : 1 542 000 km² (3X France)



CANADA

LÉGENDE

- ⊙ Capitale nationale
- Capitale provinciale ou territoriale
- Autres lieux habités
- Frontière internationale
- Limite provinciale ou territoriale
- Zone économique exclusive (200 milles marins)

Echelle
300 0 300 600 900

The Federal Government

Involved:

- In the management of its own contaminated land (>11 000 sites) (see session E)
- Elaborating general guidance documents with the provinces through the various Council of Canadian Ministers of the Environment (CCME) working group
- In small or less densely populated provinces and territories which do not have the resources to face the problem

The Provinces

- The big ones have develop their own regulation, policies, criteria, priorities, etc, independently of the other provinces and the federal government
- CCME guidelines are sometimes adopted, sometimes transformed, sometimes ignored

The Provinces

- Quebec and British-Columbia are the most active
- The Maritime provinces coordinate their effort (groundwater protection is a major issue as 80% of the people get their drinking water from the GW)
- Ontario is mainly focussing on brownfields revitalisation and has a lot of discussion going on on liabilities
- Alberta (the Canadian Texas or Saudi Arabia) has a specific oil problem

Elements common to all provinces

- Each province has specific regulation on land contamination (but some are more developed than others). Ex: Quebec requires assessment and cleanup after industries cessation of activities)
- Each province has a set of use bases generic criteria (but they are not the same!)
- Each province allows risk based management decision but the requirements differs and some are more open than others:
 - The Maritimes use the Rebecca model
 - Quebec does not allow risk assessment for petroleum hydrocarbons or the private residential first two meters
- Each province has put in place a soil treatment industries but it is not developed equally (Quebec is the only province where it is compulsory to treat excavated soil contaminated above a certain level of contamination and provides a list of treatment facilities are on Internet)

| Province | Treatment centres | Biodegradation |
|--------------|-------------------|---|
| Quebec | 29 | 26 |
| C.-B. | 24 | 23 |
| Alberta | 9 | 8 |
| Ontario | 5 | 5 |
| N.-B. | 3 | 3 |
| Saskatchewan | 3 | 3 |
| Manitoba | 3 | 3 |
| TNO | 2 | 2 |
| N.-S. | 1 | 1 (thermal treatment is also possible at this site) |
| TOTAL | 79 | 74 |

Elements common to all provinces

- Many provinces have an internet list of the contaminated sites known on their own territory (B.-C., Sask., Manitoba, Ontario, Quebec) (but they are not all compiled the same way)
- Orphan mining sites is a big problem for many provinces (but new regulation has more teeth with compulsory initial funding for remediation to be provided by companies)
- Three provinces have put in place a network of private acknowledge experts to supervise some of the assessment and remediation work (B.-C., Ontario and Quebec)
- There is a trend to tackle governmental environmental liabilities (Fed. Gov. ahead with B.-C., Quebec and Manitoba trailing) (see E presentation)

Fundings

Quebec:

ReviSols (1998-2005) and ClimatSol (2007-2010) programs (see E session)

- Grants to developers and municipalities

Fundings

Ontario:

The Brownfields Financial Tax Incentive Program

- Allows municipalities to provide property tax assistance to property owners for the purposes of environmental rehabilitation of brownfields properties within an approved Community Improvement Plan (CIP) project area.
- Municipalities may also apply for matching education property tax assistance from the Province.

Fundings

Canada (Federal government):

The Federation of Canadian Municipalities Green Municipal Fund (GMF)

- Offer financing (loans) to municipal governments and their partners to implement specific brownfield remediation capital projects.

Fundings

Alberta:

Tank Site Remediation Program

- Municipalities and owners of small retail gas stations with potential contamination from underground petroleum storage tanks may be eligible for funding (grants) under a \$50 million remediation program.
- **Alberta Municipal Affairs**



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British-Columbia



- A container used to treat wood with chemicals by saturation. This site on the North arm of the Fraser River was an active wood preserving plant from 1931-1983. The primary contaminant found in the soil and in the river was creosote which is the main chemical used for the preservation process.

British-Columbia

- Three units (Land Remediation Section) :
 - The Risk Assessment and Remediation Unit oversees the cleanup of high risk contaminated sites.
 - The Operations Management Unit coordinates, oversees and monitors the approved professional system for contaminated sites which delivers services for low and moderate risk sites. It also provides Section administration support and coordinates policy development and the provision of information on sites.
 - The Olympics and Brownfields Unit coordinates site investigations and remediation of key development projects for the 2010 Winter Olympic Games and advises on the development of provincial brownfields initiatives

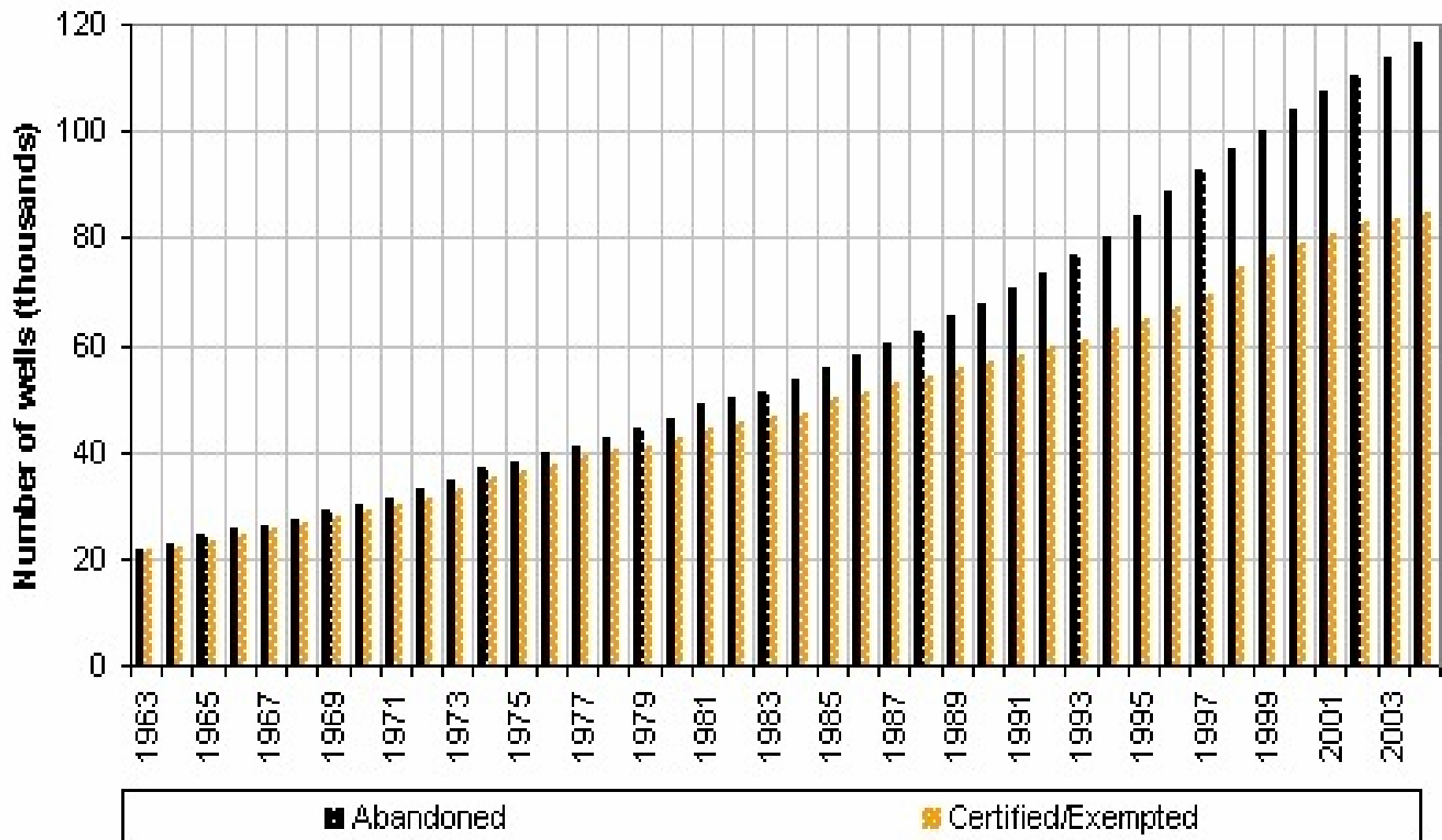
British-Columbia

- 8000 sites in the ministry's records
- Contaminated Soil Relocation Agreements regulate the movement of soil from contaminated sites, taking into account the soil quality and environmental conditions at the deposit site
- The province uses a fee for service approach in providing these services.

British-Columbia

- Among the changes being planned are:
 - The development of a new site classification system to identify high priority sites
 - New scientific tools for conducting screening-level risk assessments.

Comparison of the Cumulative Number of Oil and Gas Wells Abandoned to the Cumulative Number of Wells Reclaimed (Certified or Exempted) from 1963 to 2004



Taking Action on Brownfields

Addressing barriers to
redevelopment

ONTARIO

- New legislation:
 - Protects developers from provincial cleanup orders in cases where contaminants migrate from a property. This would apply once cleanup documentation is filed, as long as the migration does not exceed defined environmental standards and the developers did not cause the contamination. Consultants doing cleanup work are also protected from provincial cleanup orders
 - Municipalities are protected from civil lawsuits relating to planning approval and building permit decisions, where the lawsuits solely arise from inaccuracies in filed cleanup documentation
 - Protects companies involved in abandoned mine remediation from provincial cleanup orders relating to past contamination, as long as the company was not the cause of contamination
- Ministry of Municipal Affairs and Housing involvements



Quebec



Decommissioned Noranda Mining Cie. Smelter in Murdochville

Quebec

- Among the changes being considered for the near future:
 - Funds providing for the assessment and cleanup of heating oil and fuel oil contamination
 - Regulate approaches concerning the use of specific risk assessment
 - Regulate approaches concerning the management of excavated contaminated soil
 - New Soil Protection and Contaminated Land Rehabilitation Policy (2008)