

Passing the Torch- Learning from Progress : Quebec

Canadian Brownfields 2009

**Vancouver
October 26**

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**Quebec Ministry for Sustainable Development, Environment and
Parks**

Sustainable Development Act

- Quebec adopted the Sustainable Development Act on April 19th, 2006
 - Introduces 16 principles to guide the actions of the public service
 - Commits the government to adopting a sustainable development strategy, a single one applicable to all departments and a considerable number of agencies
 - Establish a Green Fund to finance measures or programs

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Sustainable Development Act

- “Sustainable development” means development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- Sustainable development is based on a **long-term approach** which takes into account the inextricable nature of the environmental, social and economic dimensions of development activities.

Contaminated Land Rehabilitation Policies : Dealing with Uncertainty

- **Contaminated Land Rehabilitation Policy (1988)**
- **Soil Protection and Contaminated Land Rehabilitation Policy (1998)**
 - + Foreseen Developments Section
- **Soil Protection and Contaminated Land Rehabilitation Policy (2010)**
 - Sustainable Development Concept Integration

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“Access to knowledge”

- Without knowledge of the real situation on a site, nothing can be done.

“Access to knowledge”

- **Any contamination known by the Ministry appears automatically on the Ministry register (Internet) (8000 sites)**
- **If an assessment done according to the Environmental Quality Law indicates contamination presence beyond regulatory level in soils, contamination must be registered on land title. The site will also appears on a municipal contaminated site list.**
- **A new regulation proposes that any contamination beyond the B level should be registered on the land title (and not only, as it is now for commercial and industrial land, contamination beyond C level)**

Government Economical Incentives for Urban Contaminated Land Rehabilitation/Reutilisation

Revi-Sols (1998-2005) (50-70%)

- \$114 millions
- 305 sites
- 3 millions m² have been reused
- 3,8 billions \$ invested on cleaned up sites
- Yearly municipal taxes generated; \$94,6 millions

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Government Economical Incentives for Urban Contaminated Land Rehabilitation/Reutilisation

- **Climat Sol (2007-2010) (30-50%)**
 - \$50 millions
 - Projects must be energy efficient and «green» (no vegetation lost (+10% buildings, +25% parks))
 - 105 projets received, 59 accepted (June 15)
- **Beyond contaminated land rehabilitation :**
integrates sustainable development and
climate change preoccupations

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Major Infrastructure Works

- Major infrastructure works will be done in Montreal (Turcot overpass and Notre-Dame boulevard enlargement)
- heavy metals slightly contaminated soils (hundreds of thousands m³) will have to be moved, reused, treated or eliminated

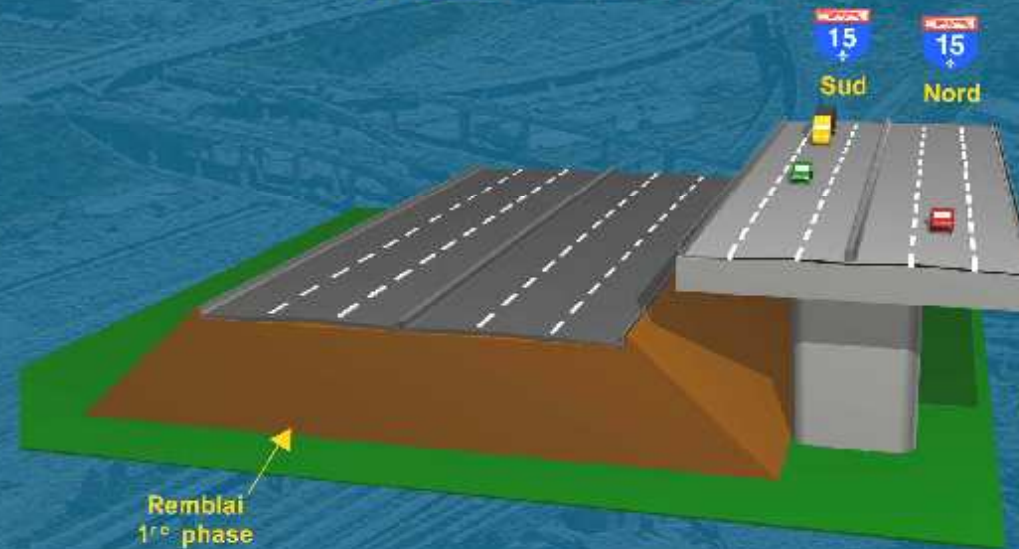
Turcot Overpass



Turcot Overpass

Phases de construction Secteur de La Vérendrye

Phase 1 Phase 2 Phase 3



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Transports
Québec  13

Turcot Overpass

Cour Turcot (Vue aérienne) – AVANT –



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Turcot Overpass

Cour Turcot (Vue aérienne) – APRÈS –



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Major Infrastructure Works

Discussions are going on with the Transport Ministry regarding introduction of new (more sustainable) ways:

- Excavated material segregation on site
- Heavy metals treatment (no technology yet available)
- Possible reuse of treated/slightly contaminated soils as part of the infrastructure

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Quebec's Government's Contaminated Sites Program

- All ministries were asked to list the contaminated sites for which they acknowledge liability and assess the rehabilitation costs
- More than 800 sites on the list (>1 billion \$ liability)
- Yearly Action Plan must be submitted by each ministry
 - The MDDEP will spend \$11 millions this year

In Situ Treatment Technologies

- The *ex situ* treatment sites list already appears on the Ministry Internet site (30)
- To foster *in situ* treatment (a more sustainable approach), the Minister will post on its Internet site the list of the technologies already used in Quebec as well as identified the companies who did the work

In Situ Treatment Technologies

- Multiphase extraction/pump and treat
- Permeable reactive barrier
- Chemical oxydation
- Bioventilation
- Biostimulation
- Biological treatment

18 companies applied one or another
over the last 10 years