Brownfield Remediation and Redevelopment in B.C.

World Bank Brownfield Remediation and Redevelopment Program
Vancouver – December 13, 2010

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Outline of Presentation

1. B.C.’s contaminated sites (brownfields) regulatory framework
2. B.C.’s Brownfield Renewal Strategy
3. Olympic-catalyzed brownfield redevelopment
4. Site visits (this afternoon)
About British Columbia

Area = 95M ha

Population = 4.5M
B.C.’s Contaminated Sites (Brownfield) Regulatory Framework
False Creek, Vancouver (looking East)

Source: http://vancouver.ca
Regulatory Framework

(Apply province-wide since 1997. Each province in Canada is responsible for establishing its own laws and processes in this and other environmental areas)
Supporting Documentation

- Protocols
- Procedures
- Guidance
- Fact Sheets
- Reports
- Forms
"contaminated site" means an area of the land in which the soil or any groundwater lying beneath it, or the water or the underlying sediment, contains (a) a hazardous waste, or (b) another prescribed substance in quantities or concentrations exceeding prescribed risk based or numerical criteria or standards or conditions (ref: EMAct s. 39)
Key Features of Regulatory Framework

- Staged identification, assessment and cleanup provisions
- Flexible, scientifically-based remediation standards to protect human health and the environment
- Ministry approval and certification of remediation
- Linkages to local government land use authorization processes (e.g., development permits, land use zoning)
Key Features of Regulatory Framework (cont’d)

- Extensive rules on liability (who’s responsible for clean up, who’s not). Based on “polluter pays” principle.

- Significant reliance on private-sector qualified professionals

- Transparency
  - Public access to site information (Site Registry)
  - Notifications of offsite migration, start of clean-up

- Cost recovery (lump sum and hourly fees charged by Ministry for services)
B.C.’s Brownfield Renewal Strategy
Our objective: To revitalize sites like this.
B.C. Brownfield Renewal Strategy

1. Environmental liability and risk management
2. Financial investment
3. Capacity building and education
4. Leading by example on Crown sites

National Brownfield Strategy (NRTEE)
“Brownfield” Defined

“Abandoned, idle or underutilized commercial or industrial properties where past actions have caused known or suspected environmental contamination, but where there is an “active potential” for redevelopment”

(National Round Table on the Environment and Economy (NRTEE) from A National Brownfield Redevelopment Strategy for Canada, 2003)
Ministry Roles for Brownfields in BC

**Regulation** of contaminated sites investigation and clean up ("regulator") and BC Brownfield Renewal partner.

**Management** of provincial Crown liabilities at contaminated sites ("responsible person") and BC Brownfield Renewal lead.
Environmental Liability and Risk Management

Initiatives underway include...

1. Streamlining of the *Environmental Management Act* – short and long term initiatives

2. Remediation liability transfer

3. Prevention of contaminated sites
Financial Investment

- CDN$ 10M / 5-year funding program announced in April 2009
- 3 application opportunities to date
- Total of 29 applications have been selected for funding (17 rural or small urban; 5 former service station sites)
- Total of approximately CDN$ 2.4M awarded to date
Capacity Building and Education

From Brownfields...  
...to renewal!


The Province of British Columbia is making brownfield redevelopment easier through new policies, incentives, tools, and resources.

Explore the triple-bottom-line benefits of brownfield redevelopment:

ECONOMIC  ENVIRONMENTAL  SOCIAL

Economic Benefits:

Brownfield redevelopment can:
- improve local economic growth
- increase local tax revenue from redeveloping vacant & underused properties
- enhance land values surrounding redeveloped brownfields
- replace lost jobs by creating space for new industry on redeveloped brownfields
- be a catalyst for surrounding development creating a favourable climate for more brownfield redevelopment projects

Brownfield redevelopment creates a number of economic benefits for local governments, land developers and the community. By choosing to redevelop vacant or unused land, new sources of tax revenue can be found and redeveloped brownfield projects can spur on further new development as part of a community revitalization strategy.

Top 5 Questions
1. What is a brownfield?
2. Why haven't I heard of brownfields before?
3. What is the Province doing to support brownfield renewal?
4. What are the benefits of brownfield renewal?
5. How many brownfields are there around the province?
Capacity Building and Education (cont’d)

BROWNFIELD REDEVELOPMENT

British Columbia Institute of Technology’s School of Construction and the Environment and the University of British Columbia’s Continuing Studies are launching a series of courses in Brownfield Redevelopment. Starting in January 2009, the series of 5 courses are in support of the B.C. Brownfield Renewal Strategy. The purpose of the program is to provide current and prospective practitioners in the brownfield redevelopment industry with relevant knowledge and skills within an interdisciplinary framework.
Workshops to Build Local Government Capacity for Brownfield Redevelopment in B.C.

Aim — increase local capacity for brownfield development by addressing municipal barriers: lack of funding, uncertainty regarding relevant legislation, and access to technologies.

Four one-day workshops in Prince George, Prince Rupert, Nanaimo and Mission
- Connected experts in brownfield technologies, legislation, funding and capacity building
- Introduced a new provincial brownfield roadmap tool

"I think this had to be one of the best seminars I have been to in a long while. It is constantly on my mind as I work through different commercial properties."
- Workshop participant
  Rob Randin, Century 21 – Harbour Realty Ltd.

Need brownfields funding, tools and resources? Visit:
- www.fcm.ca/gmf
- www.brownfieldderewal.gov.bc.ca
- www.aboutremediation.com
Leading by Example on Crown Sites

Legend

- Priority Sites
- Candidate Sites
- Other Sites
- Remediated Sites
- Brownfield Pilot Sites
Olympic-Catalyzed Brownfield Redevelopment
Pillars of Olympic Movement

• Sport

• Culture

• Environment (Sustainability)
Athlete’s Villages and Media Centre

Whistler Athlete’s Village and Legacy Neighbourhood

False Creek

Vancouver Convention Centre (Olympic Media Centre; we are close to here)

SE False Creek (Vancouver Olympic Village)

Source: http://vancouver.ca
SE False Creek and Olympic Village (Nov 2007)
SE False Creek and Olympic Village (Jun 2009)
SE False Creek and Olympic Village (beyond 2010)
Vancouver Convention Centre Expansion (Olympic Media Centre)

Source: www.vccep.bc.ca
Whistler Athlete’s Village
Whistler Athlete’s Centre
Whistler Legacy Neighbourhood
Sustainability Initiatives and Innovations

- **Common**
  - Site remediation (incl. landfill closure)
  - LEED Buildings and Neighbourhood Pilot Projects
  - District/neighbourhood energy systems (SEFC/WAV)
  - Non-market housing legacies (SEFC/WAV)

- **SE False Creek/Olympic Village**
  - Habitat compensation “island”
  - Heat recovery from waste water

- **Vancouver Convention Centre**
  - 6-acre green roof (plants/insects, rainwater recovery)
  - Seawater heating/cooling, onsite water treatment
  - Fish habitat built in to foundation

- **Whistler Athlete’s Village**
  - Heat recovery from waste water
  - Stormwater management including wetland complex
Site Visits – This Afternoon
This Afternoon’s Site Visits

Source: http://vancouver.ca