The Future of Brady Road Landfill

October 27, 2011

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Agenda

- An overview of current operations at Brady Road Landfill
- Operating requirements
- Environmental impact assessment findings
- Future opportunities for Brady Road Landfill
- Question and answer period

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Brady Landfill Today

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Manager of Solid Waste Services

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Brady Landfill Today

- The City's sole landfill since 1998
- Entire site is about 790 hectares – larger than River Heights
  - about 1/8 of the site is used for garbage burial
- Supported by tipping fees

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Garbage

- Handles more than 400,000 tonnes of garbage each year – about 1/3 of this is organic waste
- Emits greenhouse gases equal to the annual emissions from about 70,000 passenger vehicles
- Produces up to six tanker trucks of leachate every day for treatment (the harmful liquid produced by moisture filtering down through garbage)

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Current Diversion Efforts at Brady

- More than 11,800 tonnes of material is kept out of the landfill and reused each year
  - more than 5,000 tonnes of glass used for road base
  - over 4,000 bicycles collected to date for refurbishing
  - more than 2,500 appliances per year recycled for the metal

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Current Diversion Efforts at Brady

- More than 500 tonnes of metal recycled

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Current Diversion Efforts at Brady

- More than 2,000 tonnes of wood waste turned into flooring and other products

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Current Diversion Efforts at Brady

- 4,200 tonnes of yard waste composted

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Current Diversion Efforts at Brady

- Over 100 tonnes of tires made into new products

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Operating Requirements

- Operating under a permit since 1973
- Provincial regulations have evolved and landfills in Manitoba are now required to be licensed
- Need to conduct an environmental impact assessment as part of the licensing process
- Stantec, an independent consulting firm, has conducted the assessment

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Environmental Impact Assessment
Brady Road Landfill

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Practice Leader, Environmental Services Manitoba
Stantec Consulting Ltd.

Key Technical Assessment Findings

- The landfill does not significantly impact the quality of groundwater beneath the landfill
  - the landfill is situated on a thick layer of clay separating it from the groundwater
  - the groundwater in this area is not used as a drinking water source because of its naturally occurring salt content
- Instances of odour are short-lived and not routine
  - improved operational practices and diversion opportunities will further reduce odours
- The landfill is not harmful to human health
  - medical data indicates no human health implications throughout the 40 years this landfill has been operating

Implications of Findings

- The deep clay subsurface has significantly minimized harmful substances from reaching the groundwater
- Use of artificial liners under future garbage burial areas will create even more protection
- Retrofitting current burial areas for landfill gas recovery, and improved diversion and operations, will even further reduce the instances of odour

Environmental Site Improvements

Improvement	Benefits
Install a landfill gas recovery system	Reduces odour, greenhouse gas emissions
Install a liner at the bottom of the burial areas	Further protects groundwater
Build an engineered wetland	Further protects surface water
Improve the cover and vegetation over completed burial areas	Greatly reduces the production of leachate and bird and animal nuisance

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The New and Improved Brady Landfill

- Rename the site to The Brady Road Resource Management Facility, to reflect:
  - 35 – 50% less garbage requiring burial by 2020 once the Garbage and Recycling Master Plan is in place
  - increased diversion opportunities

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New Diversion Opportunities

- Facility to process recyclable materials
- Composting facility that would produce material that could be sold, given to the public, or used on City property
- “Green Business Park” for local industries that would remake the materials on site into reusable items for sale
- Research and business development centre

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New Diversion Opportunities

Community Resource Recovery Centre

Drop-off area for material that could be processed and reused, resold or recycled (e.g., construction and demolition material, household items)

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Other Opportunities

Capture of gas in burial and composting areas will create potential for energy recovery

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Other Opportunities

- Recreation area (e.g., park, sports field)
- Community gardens
- Habitat creation including wetlands and forest

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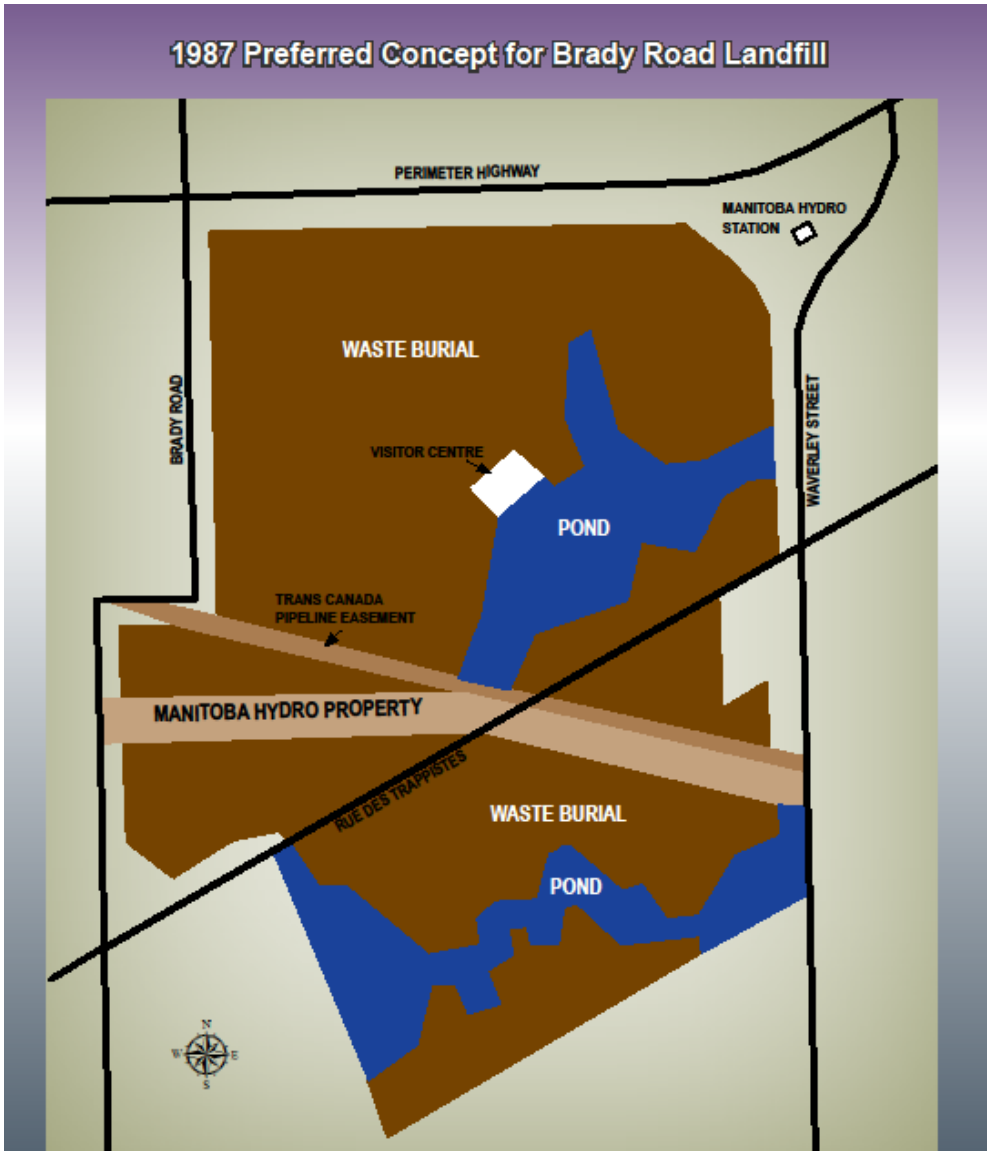
Brady Road Landfill Plan (1987)



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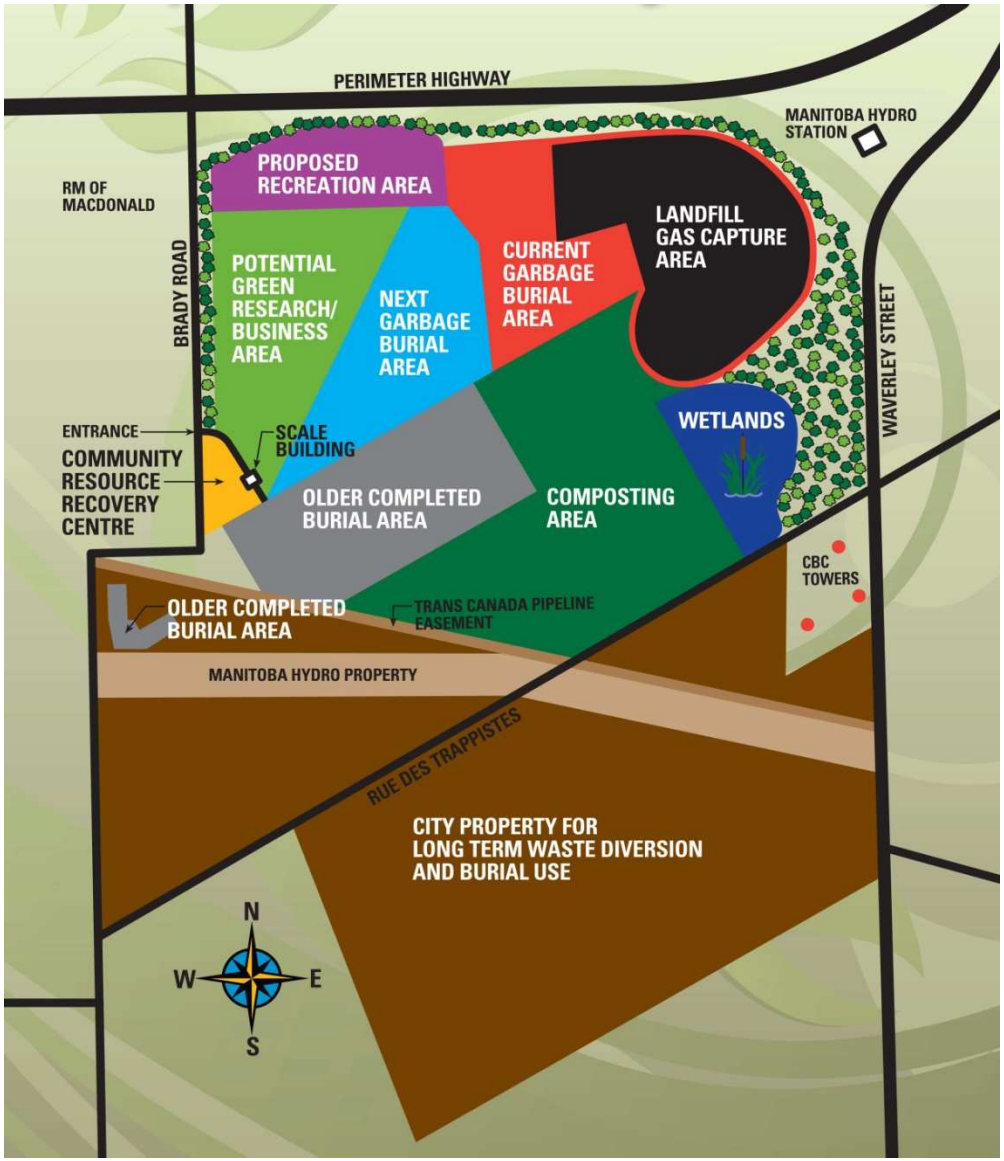
Brady Road Resource Recovery Facility



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Next Steps

- Incorporate your feedback into the Environment Impact Assessment
- Submit Environment Act Proposal to Province by end of 2011
- Report back to community on outcome of licence application (e.g., website, media release)
- Rezone the site to accommodate diverse uses
- Ongoing community conversation on details of future plans

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Questions?

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