Saskatchewan Ministry of Environment
Environmental Protection Branch

Solid Waste Management
Where are Saskatchewan Landfills at?

Co-Create Conference May 2017
Overview

• The past/ - where are we now – transition is occurring!

• The present – transition to the future

• What does the Future Look Like?
The Past Into Transition
Fires
The Past Into Transition
Cover and Compaction
The Past Into Transition
Leachate Management
The Past Into Transition
Unauthorized Construction
😊Down in the Dumps?😊
Or is this Cute?........Not so much!
How many currently operating landfills?
Present – Transition to the Future

Saskatchewan 2016

<table>
<thead>
<tr>
<th>Status</th>
<th>Municipal Landfills</th>
<th>Transfer Stations</th>
<th>Industrial Landfills</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>328</td>
<td>155</td>
<td>15</td>
<td>498</td>
</tr>
<tr>
<td>Closed</td>
<td>350</td>
<td>4</td>
<td>2</td>
<td>356</td>
</tr>
<tr>
<td>Total</td>
<td>678</td>
<td>159</td>
<td>17</td>
<td>854</td>
</tr>
</tbody>
</table>

Down from over 500 in 2013

Figure 3: Number of Operating Waste Disposal Grounds by Jurisdiction (2016)
Present – Transition to the Future
Present - Transition to the Future
Present - Transition to the Future

Regional Landfill and Recycling Center

16-43 Waste Management Corporation

- *Innovative concept* – using an former intensive livestock operations site – convert to a landfill and recycling waste transfer facility.
- lagoon converted to landfill cell
- outbuildings/offices and storage facility
Present – Transition to the Future Regulation

• Modernization of legislation
  – To be consulted with the SWMS
  – *Municipal Refuse Management Regulations* are up for Red Tape Review to be done with SWMS consultation

• Code Chapters
  – No plans for landfill chapter (or any waste management) to move forward at this time
  – Could codify lower risk waste activities prior to landfills (transfer stations, compost facilities, recycling facilities)

• Best Management Practice
  – Most common is Alberta
Regulatory Update new in 2016

• New updated **permmit to operate** being issued.
• Notable changes:
  • - requirements for site assessments and recommended groundwater monitoring
  • Requirements for Emergency Response Plans and Operations plans.
  • Requirements for decommissioning plans and process no written onto permits for clarity.
"The test results indicate that elevated concentrations of selected MSW leachate indicator parameters were detected in nine of the piezometer locations. Leachate from the landfill is impacting the water quality of the underlying aquifer. Elevated leachate parameters were detected in the groundwater in piezometers GE 101, GE 102, GE 106,....... It is evident that the leachate plume has migrated offsite to the west. The limit of the leachate plume has not yet been determined."
Present – Transition to Future

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**Closure Plan**

Once the owner receives written approval from the environmental project officer that the site may close, the owner should:

1. Determine if the site-information is sufficient for the ministry, otherwise conduct a site assessment.
2. Develop a corrective action plan to ensure long-term protection of the environment and the public.
Full Decommissioning/Reclamation

• can be done **in stages** as funds allow providing the Corrective Action Plan has been determined /provided to the Ministry in a reasonable time frame.

• initial closure and conversion to a transfer station most common.
What Does The Future Look Like?
What Does the Future Look Like?

- Yorkton....??? Rumor $185
- Saskatoon - $105/tonne
- Prince Albert - $25-54/tonne
- **North Battleford - $125/tonne**
- Many other Saskatchewan Landfills
  *typically very small sites*:
  - Free/$0 - $5
  - **Wink/catch-ya-next-time....**
  - It’s on our taxes......
What Does the Future Look Like?

PARTNERSHIPS

• How do we work together
  – Regionalize closure/decommissioning work
  – INAC funding will be available for First Nation Solid waste opportunities in regional landfills and transfer stations.

• Feasibility studies will be completed that include 13 First Nations both north and south of Prince Albert.

• Partnership opportunities with neighboring municipalities expected and encouraged.

• Under Budget 2016, Indigenous and Northern Affairs Canada is investing $409 million over five years for First Nation communities to improve how solid waste is managed on reserve.

http://www.aadnc-aandc.gc.ca/eng/1491490781609/1491490817399#Related_links
What Does the Future Look Like?

Economic Development

• New business opportunities
  – Landfill operators/private companies
  – Waste collection/transport
  – Recycling facilities/jobs
    • C&D recycling (?) back to innovation
  – Waste to energy – future as technology develops.