



Bringing New Life to a Struggling Landfill

SWANA NLC 2020 Virtual Conference

February 2021

OUTLINE

- The Project
- Our Partners
- Community Engagement
- Waste Diversion
- Waste Disposal
- Leachate Management



The Project

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Peguis First Nation

Largest First Nation community in Manitoba

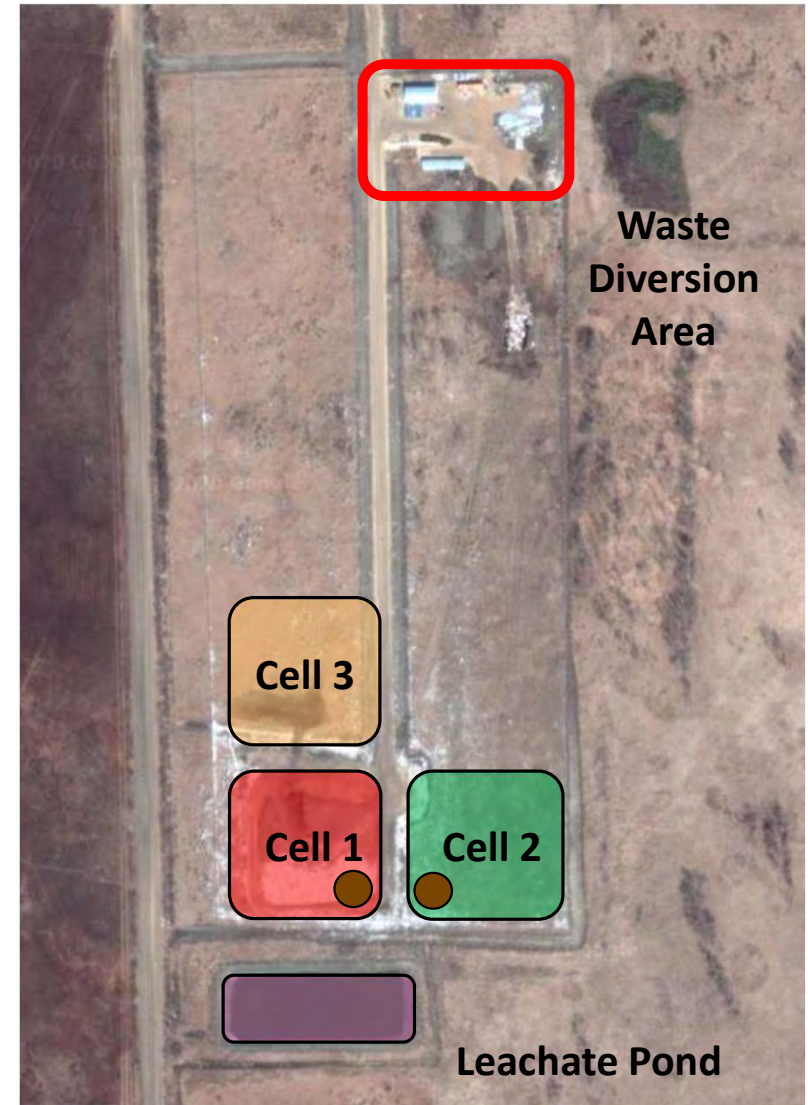
- + 10,000 members (3,500 in community)
- Ojibway and Cree descent
- Active and hardworking community



Site Layout

Landfill opened in 2009

- Simple design
- Great efforts from management
- Challenges with waste diversion, disposal and leachate management



Challenges



Waste Diversion

- Organization and safety



Waste Disposal

- Efficiency and Capacity



Leachate Management

- System improvements

Our Partners



Project Team



Community Engagement



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Waste Diversion



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Waste Diversion

Phased approach

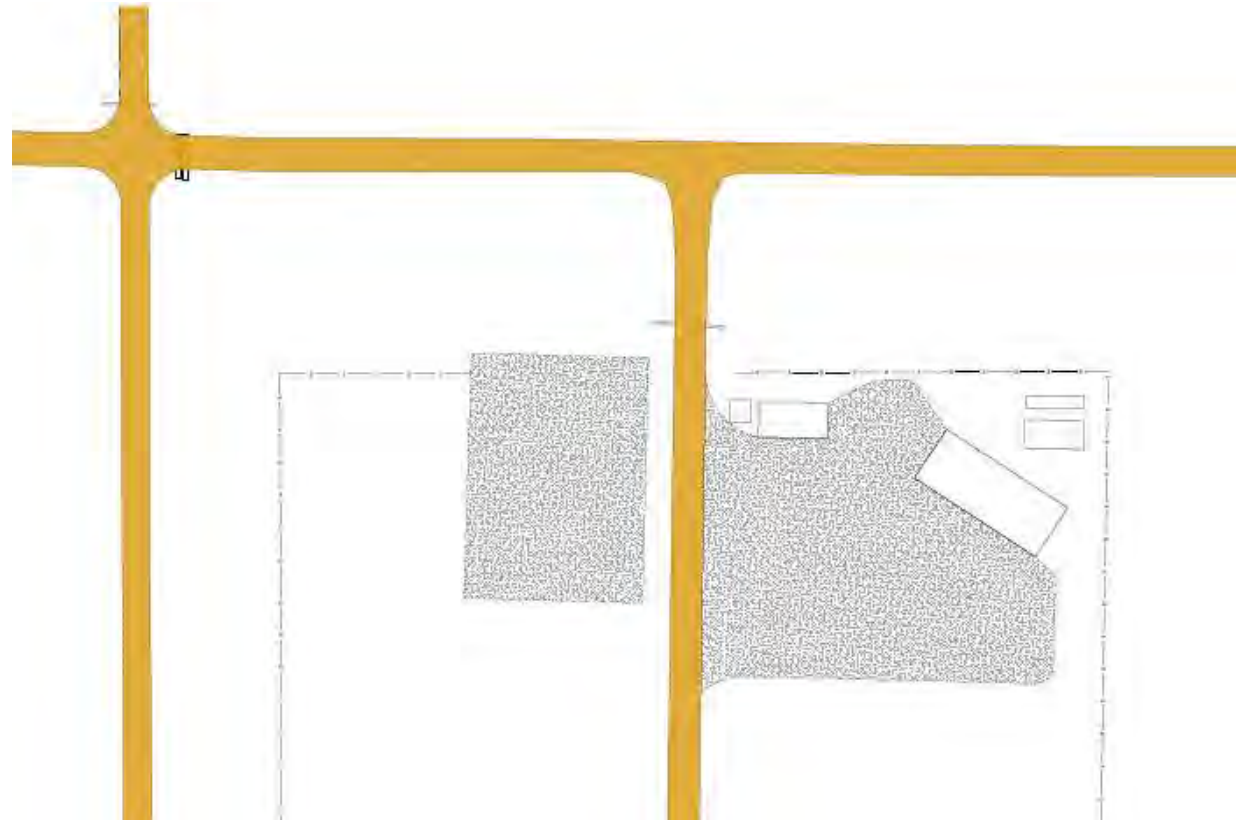
- Step 1: Assessment



Waste Diversion

Phased approach

- Step 1: Assessment
- Step 2: Clean-up and setting the stage



Waste Diversion

Phased approach

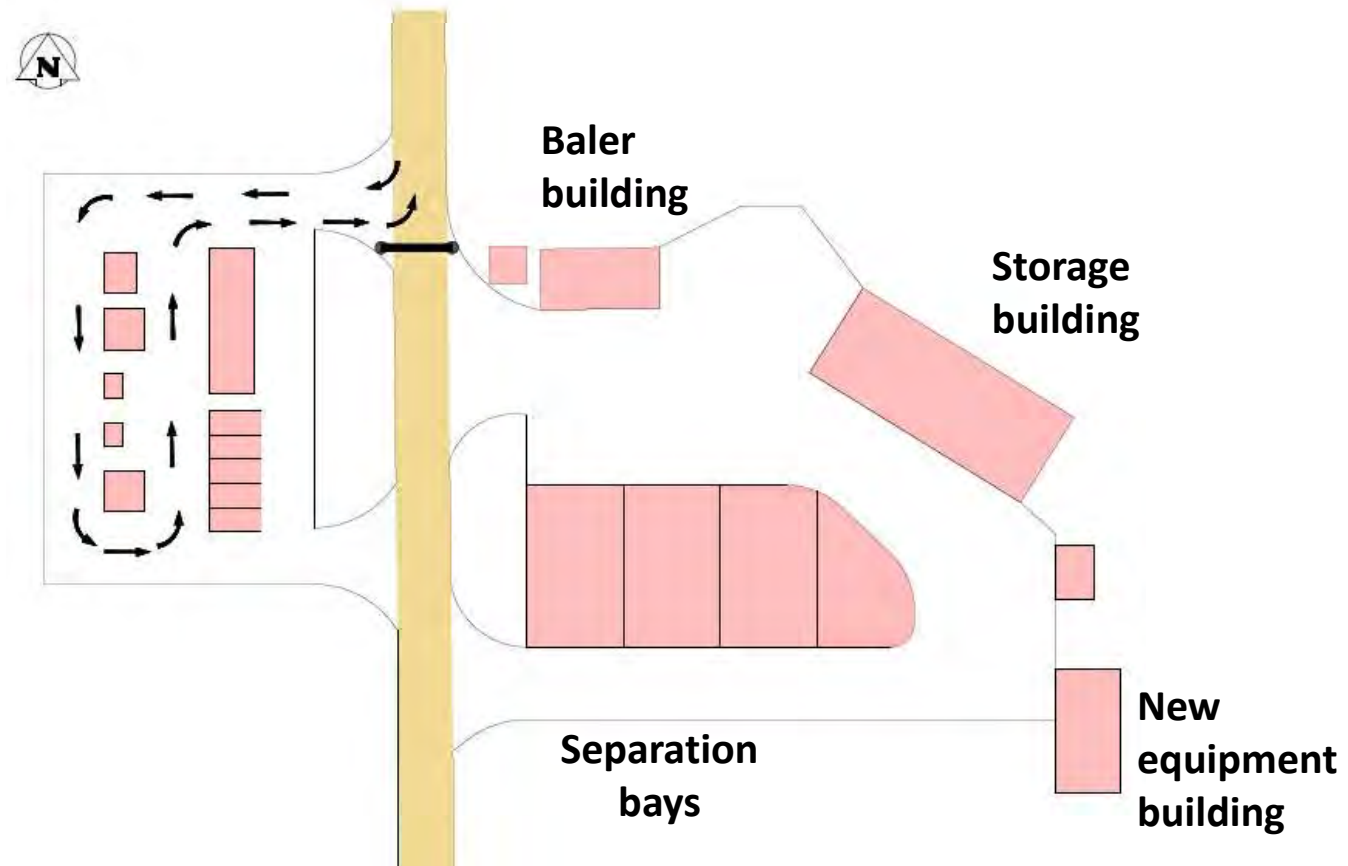
- Step 1: Assessment
- Step 2: Clean-up and setting the stage
- Step 3: New Infrastructure



Waste Diversion

Upgrades for safety and efficiency

- Reduce public at the cell
- Safer traffic flow



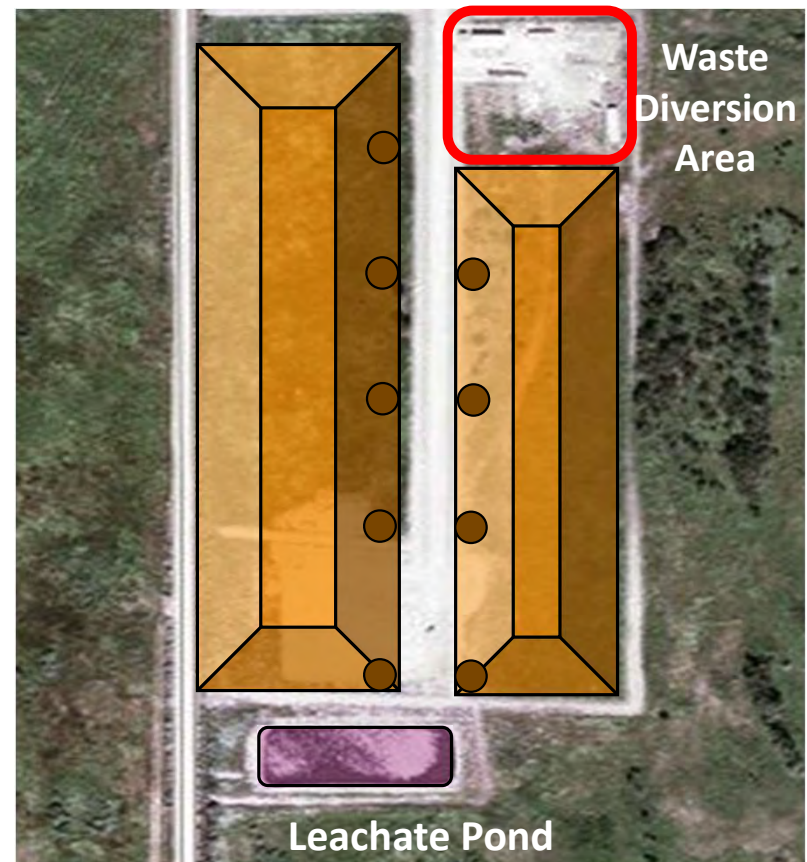
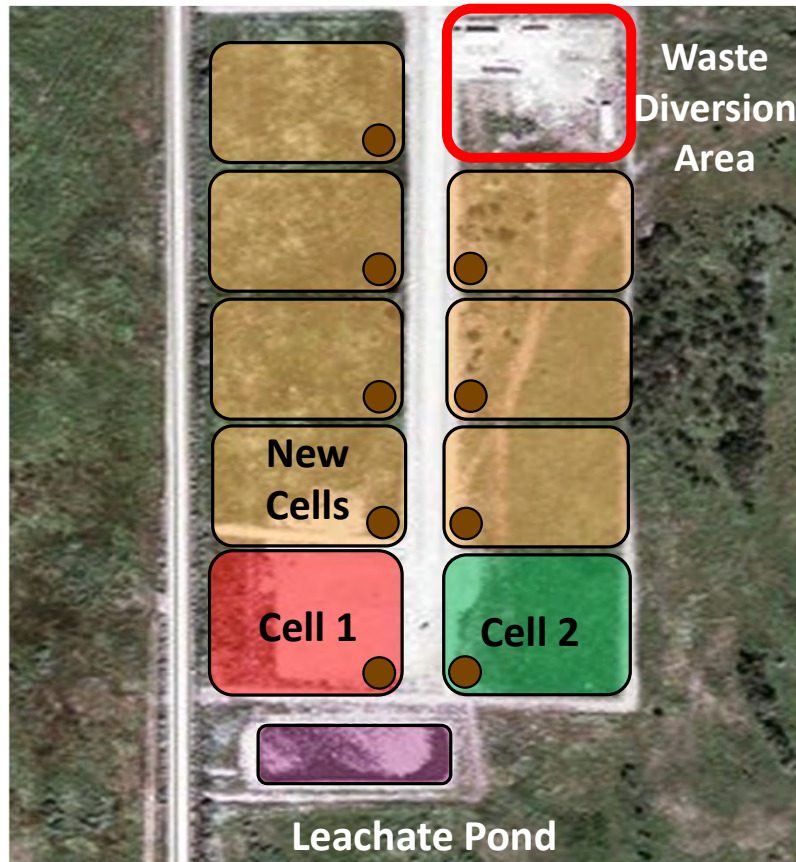
Waste Disposal



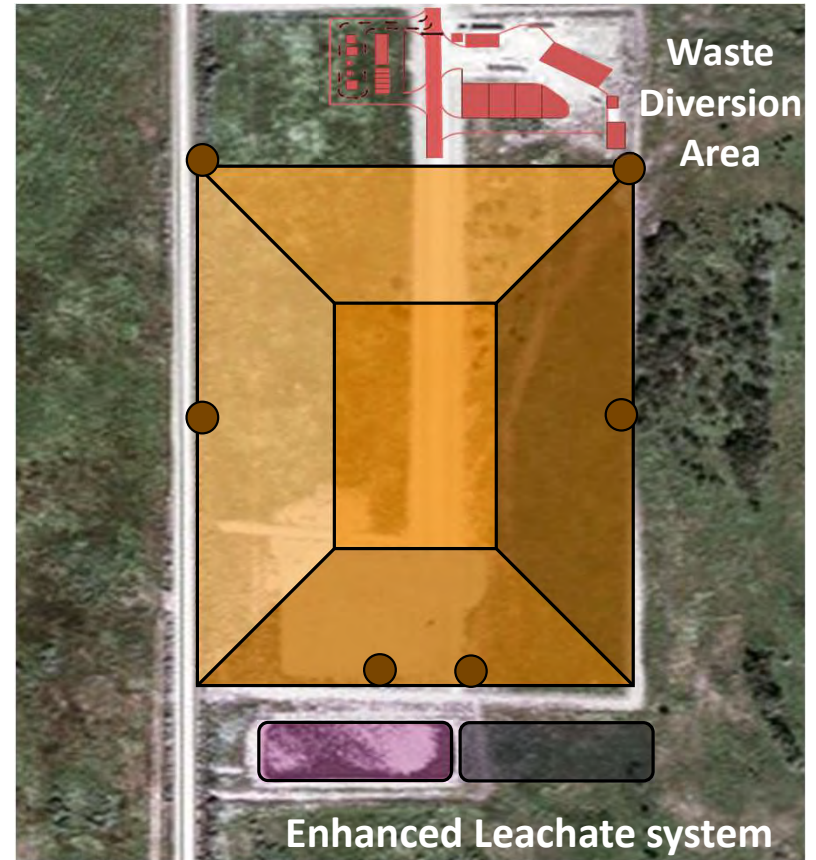
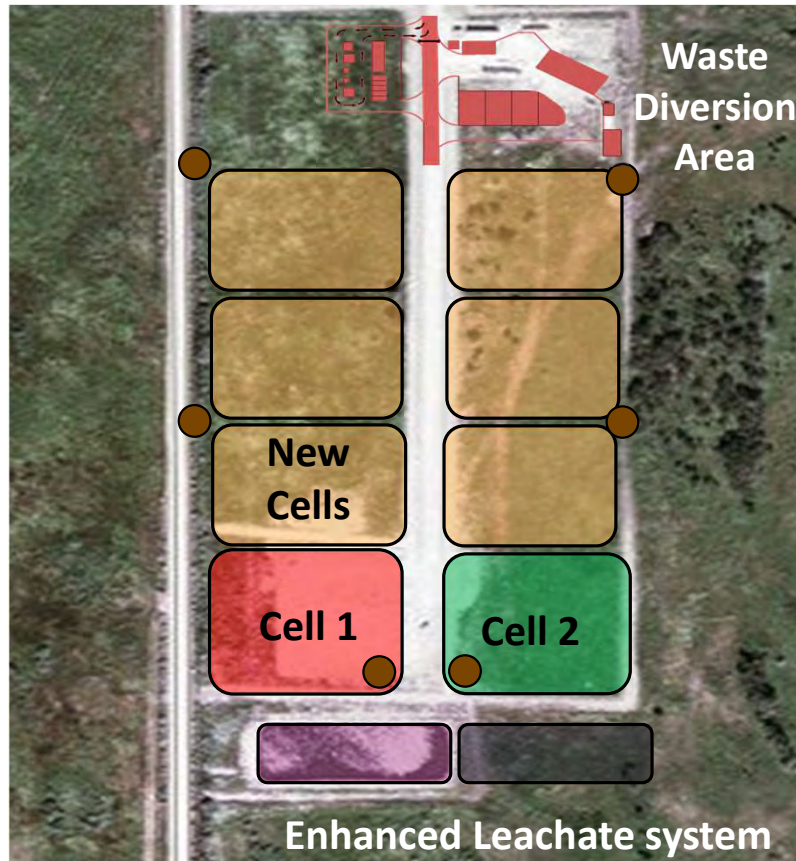
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Waste Disposal – Original configuration



Waste Disposal – New configuration



Original Configuration



New Configuration



Leachate Management



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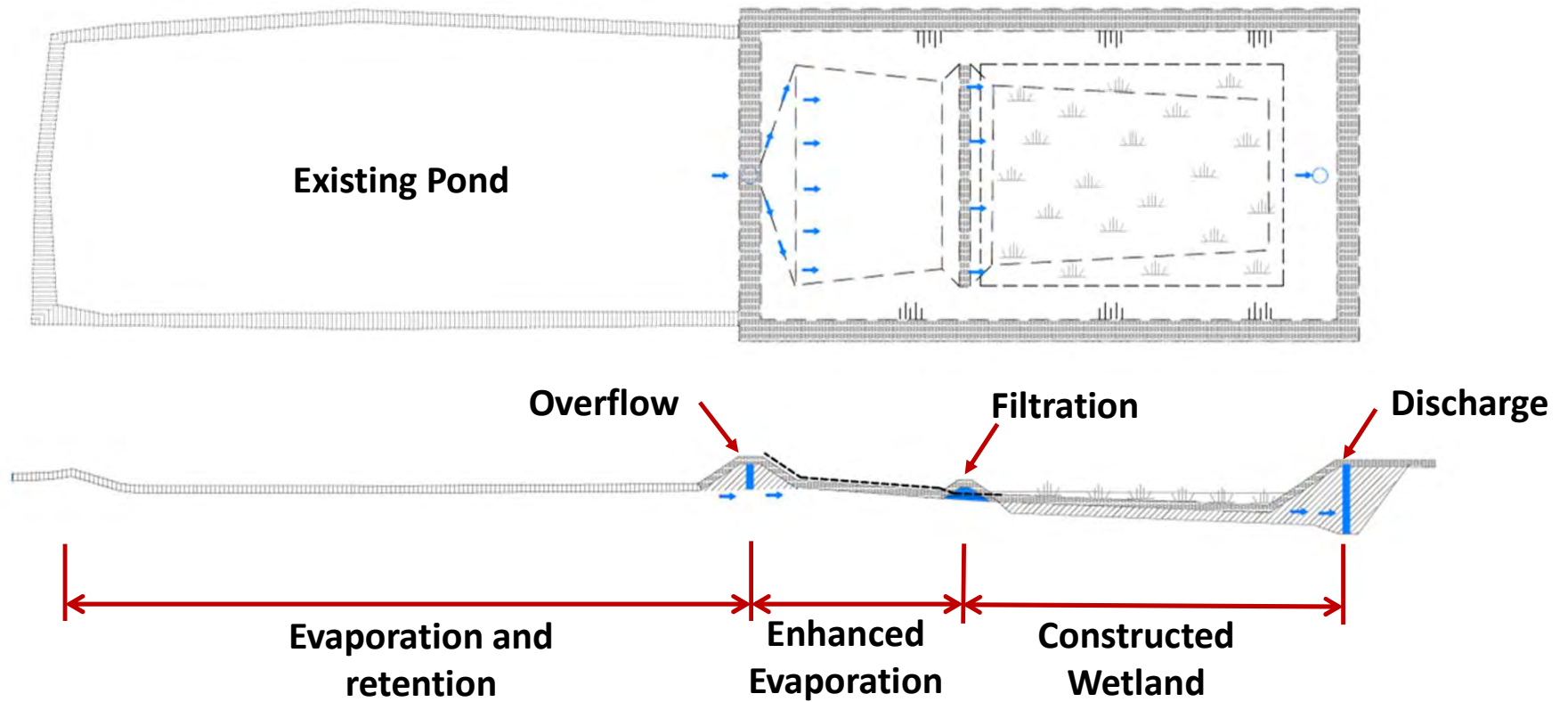
Leachate Management

Finding a solution for effective leachate management

- Natural evaporation is not enough
- Simple ideas to enhance operation



Improvements to Leachate Management



SUMMARY

- Community Engagement is key
- Upgrades to Waste Diversion area provide safe and efficient operation
- New site layout will expand site capacity
- Simple upgrades to leachate management provide better treatment



Thank you!

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