

The background is a solid blue color. On the left, there is a white silhouette of an explorer wearing a hat and a backpack, holding a telescope to their eye. The explorer is standing on a dark blue, rounded mound. In the center, a large, white, hand-drawn circular graphic with multiple overlapping lines frames the text. The text 'RCA Explore Circularity Day' is written in white, bold, sans-serif font within this circle. To the right of the circle, there are more white, rounded mounds and a thin white line that curves across the scene. The overall style is clean and modern.

RCA Explore Circularity Day

This Year's Topic of Exploration:
Waste-to-Energy

Thank you to our lunch sponsor

GEOCYCLE

Session 4: Municipal Due Diligence

- **Moderator:** Helga Vanthournout, University of Calgary
- **City of Edmonton:** Denis Jubenville, Branch Manager
- **Peace Regional Waste Commission:** Al Chorney, Senior VP Projects and Business Development, Waste to Energy Solutions
- **Sylvan Lake:** Ian Oostindie, Councillor

What do people want decision makers to think about when managing their waste?



City of Edmonton: Denis
Jubenville, Branch Manager

Edmonton

#ECD2025

Strategic Alignment - City of Edmonton Priorities



Strategic Alignment - Waste Strategy

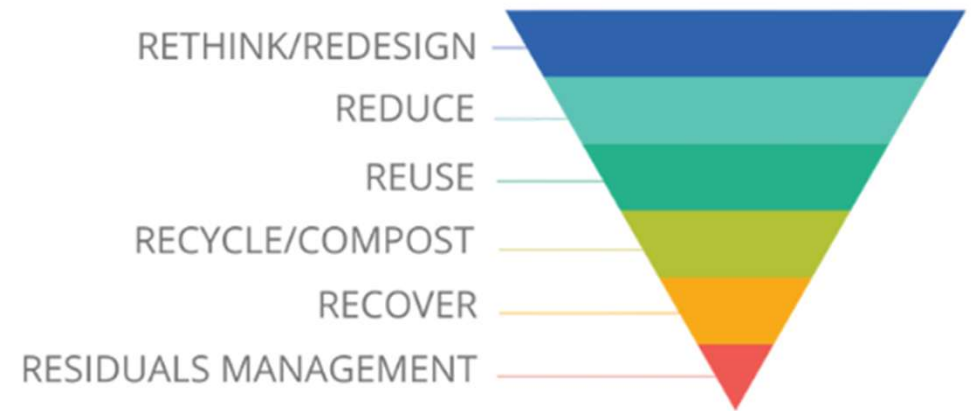
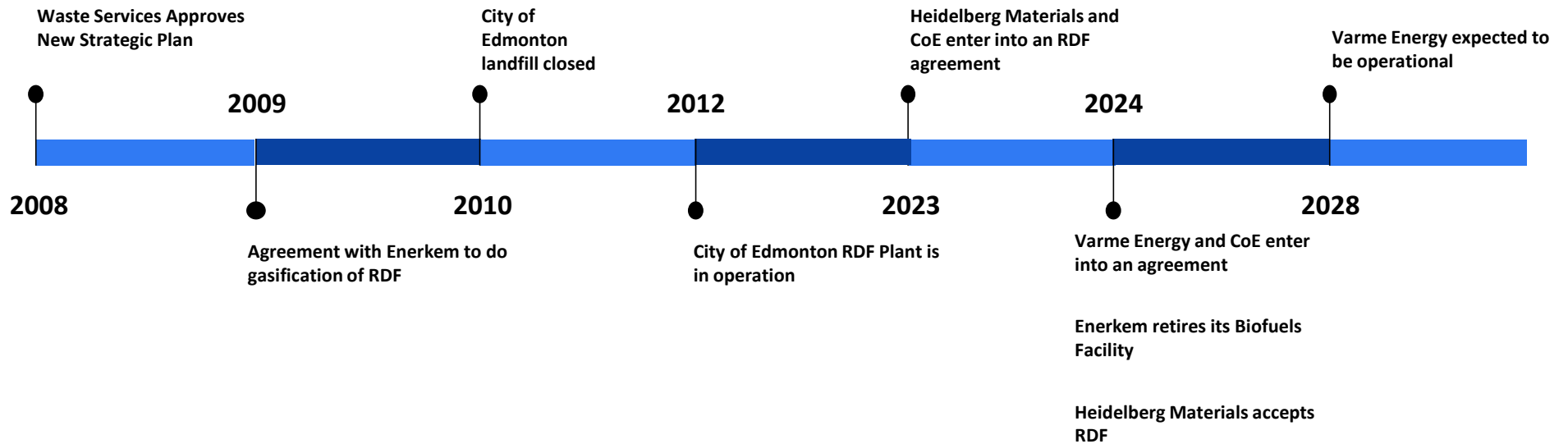


Figure 1: Edmonton's Zero Waste Framework

25-Year Waste Strategy

- Zero Waste Framework
- 90% Diversion From Landfill

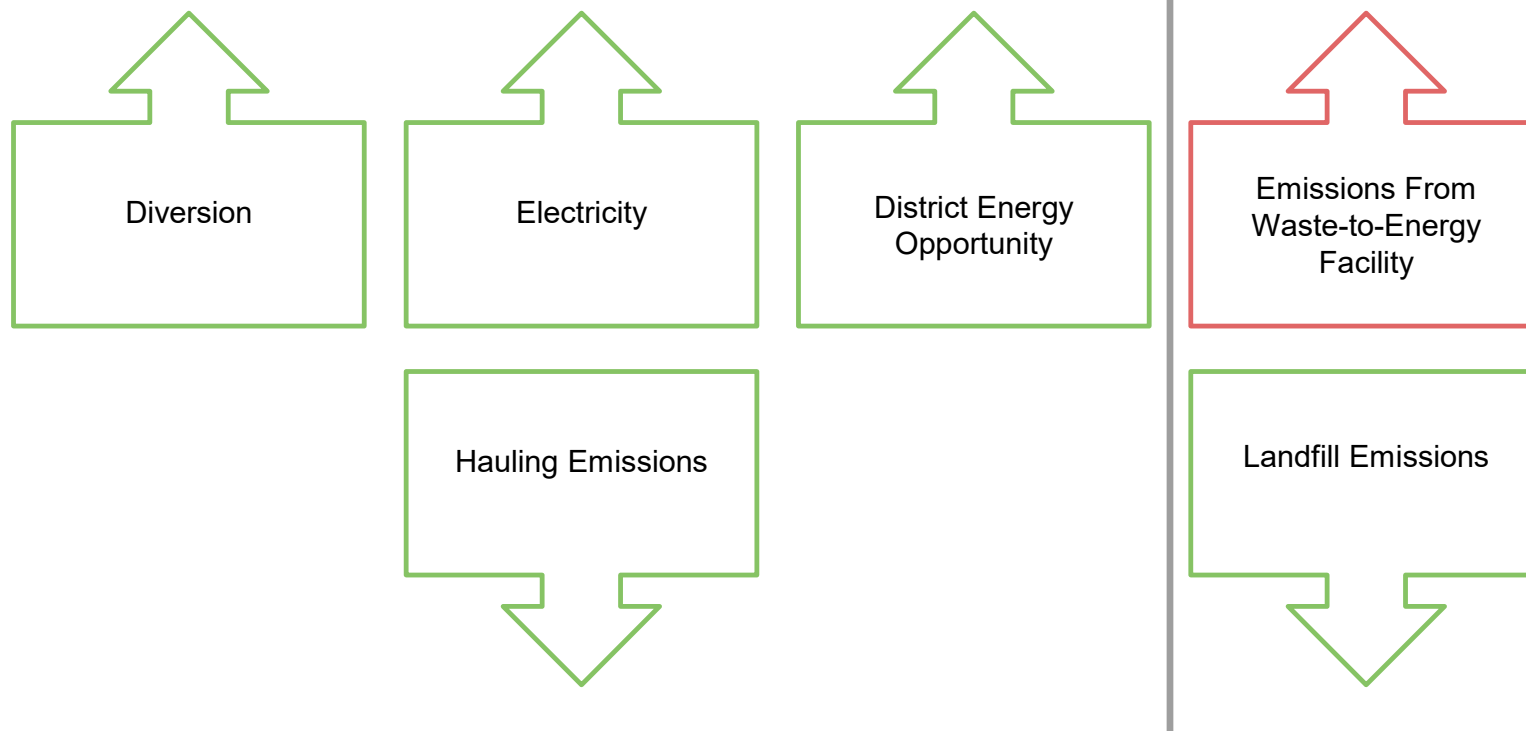
Early Waste-to-Energy Initiatives



Key Considerations

- Financial accountability to Utility ratepayers
- Landfill capacity in the Edmonton region
- Emissions impact
- Strategic alignment
- Energy transition
- Improved diversion from landfill

Waste-to-Energy Outcomes



Sylvan Lake: Ian Oostindie,
Councillor



#ECD2025



Waste to Energy: Decision making in Sylvan Lake

Cslr Ian Oostindie

Biases:

(Also) Dutch

BC / Yukon / Alberta

Physics

35 year educator

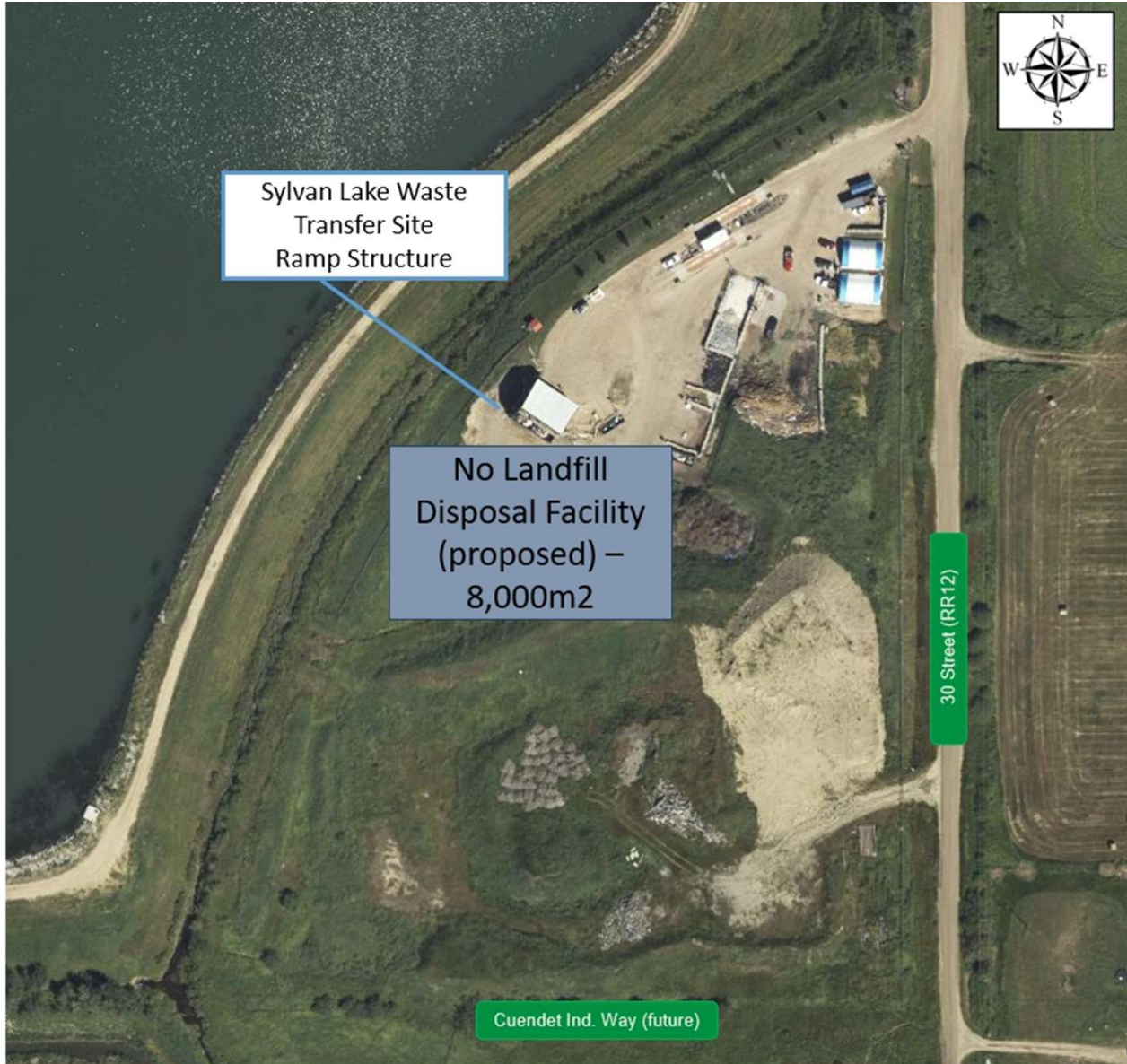
First term politician

Transfer Station:

**Recycling depot Drop
'n' Swap, paint, tires,
e-waste and
composting**

Town has two recycling
depots





Sylvan Lake Waste
Transfer Site
Ramp Structure

No Landfill
Disposal Facility
(proposed) –
8,000m²

30 Street (RR12)

Cuendet Ind. Way (future)





The two pitches



Reached '**full contract**'.
Ended contract due to
timing considerations



Reached '**Letter of Intent**'
that supports regional
initiative centered in
Innisfail

Fogdog units for
ship & medical
facility waste.

Lower volume
applications





The logo for Ompeco SRL is a stylized blue circular emblem with a central arrow pointing upwards and to the right, surrounded by concentric, swirling lines.

Ompeco SRL

Carbon Fluff

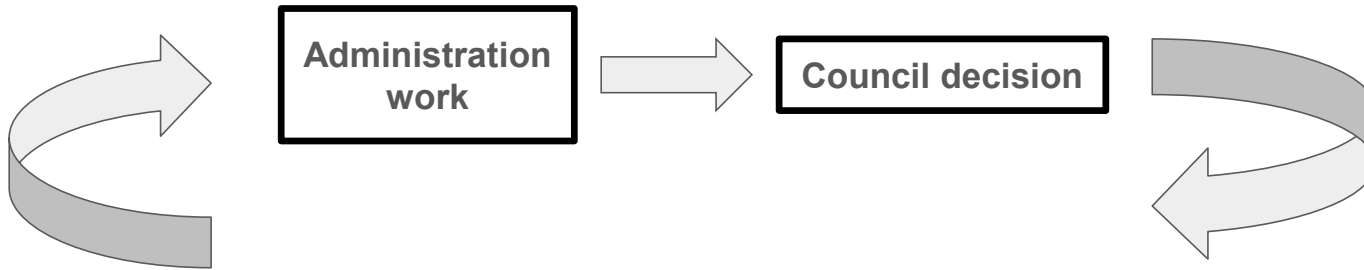
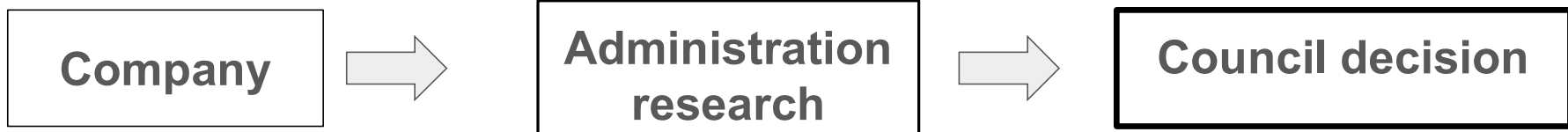
After 8 minutes (of a
30 minute cycle)



Some Decision Context

1. Albertans create **more solid waste** than any other Canadians
1. Province waste **grants are < 1%** of Sylvan Lake waste budget
2. Landfill costs rises faster than inflation in last decades
3. 2004 Costs in Alberta for Landfill management was ~
\$181,000,000
4. Sylvan Lake's 2025 **waste management budget is \$2,487,400**
1. Landfills contribute to 25% of Canada's methane emissions

Who's decision?



Answer: Politicians under advisement

Peace Region: Al Chorney, VP Projects



#ECD2025

RCA Circularity Day March 10, 2025

Introduction – Slide 1



Partners

W2E.

Waste Energy Solutions Inc.



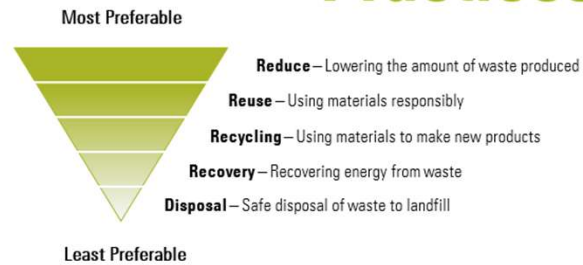
PRWMC is comprised of:

- Northern Sunrise County
- Town of Peace River
- Village of Nampa

Waste to Energy Implementation – Slide 2



Best Practices



PRWMC Waste Hierarchy

WTE Expansion Project – Slide 3

Expansion Project

- **20,800 tonnes** of waste per year are diverted from landfill
- **242,000 tonnes** of GHG avoidance over 25 years of operation
- Planned expansion is 26 times the pilot project capacity ⁽¹⁾



Project planned expansion up to
65 tonnes of waste per day



(1) Data calculated using Environment and Climate Change
Canada Organic Waste Greenhouse calculator

Targeted Emission Source – Slide 4

W2E .

WASTE ENERGY SOLUTIONS

Average Canadian Adds :

Annually

1 tonne to a landfill
25 tonnes of
Greenhouse Gasses

10 Years

10 tonnes to a landfill
1394 tonnes of
Greenhouse Gasses



Alberta 2023

4,695,300 people
10 years will contribute

6,545,248,200
tonnes of GHG

EMISSION REDUCTION

The numbers are staggering and yet continue to go unrecognized as a major source of environmental and ecological degradation. More resources are being dedicated toward carbon capture and sequestering than simply preventing the generation of Green House Gasses (GHG) emissions in the first place.

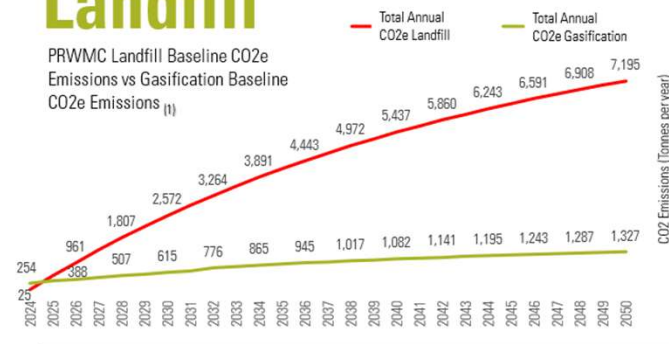
WTE a cleaner technology – Slide 5

In 2024, waste in the PRWMC landfill will generate fewer GHG emissions than a gasification facility, as landfill emissions rise over time. Landfill GHG emissions will be 25 tonnes in 2024, increasing to 7,195 tonnes in 2050.

These values are based on 8,500 tonnes of landfill waste and do not include any previous landfill waste.

Landfill

PRWMC Landfill Baseline CO₂e Emissions vs Gasification Baseline CO₂e Emissions (1)



- 25-year cumulative total CO₂e Landfill emissions: **116,840 tonnes**
- 25-year cumulative total CO₂e Gasification emissions: **24,474 tonnes**

(1) Data calculated using Environment and Climate Change Canada Organic Waste Greenhouse calculator

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is Circular.**

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