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Welcome

Burrard Inlet Port Lands



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AGENDA

1. Agenda – September 9, 2025
2. Minutes – June 10, 2025
3. Reports and Items for Discussion
4. Other Business
5. Next Steps
6. Information Items

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Reports and Items for Discussion



PROJECT TIMELINE UPDATE



PLAN COMPONENTS

Vision & Guiding Principles (Complete)

- Set the plan direction and reflect fundamental values

Goals (Complete)

- Long-term aims to be achieved as an outcome of the plan

Strategies & Actions (October)

- Specific initiatives and programs to be completed

Metrics & Targets (November)

- A way of measuring progress

PLAN OUTLINE

Overview sections

Strategies and actions

Strategic approaches

Plan implementation

Glossary and maps

STRATEGIC APPROACHES



Regulatory

- Existing tools
- Priorities
- Examples
- Considerations



Recycling and Waste Centres

- Existing system
- Priorities for upgrades and development



Residual Management Options

- Technical Criteria

REVIEW PROCESS





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Questions?

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Metro Vancouver Waste-to-Energy Facility



Vancouver Landfill

Residual Waste Management Options Review

Paul Henderson, P.Eng.

General Manager, Solid Waste Services

Solid Waste and Recycling Industry Advisory Committee Meeting, September 9, 2025

Orbit Link: 78920912

STUDY PURPOSE/CONNECTION TO SOLID WASTE MANAGEMENT PLAN

- Continuing to work with Vancouver and Delta on using Vancouver Landfill to physical capacity.
- Study purpose:
 - To understand the current national and international (United States, Europe, Japan, and Australia) practices for managing residual waste.
 - To identify the economic and regulatory drivers, successes and challenges that have led to the residual waste management option for each region.
 - To develop technical criteria for potential incorporation into the solid waste management plan to assist with decision-making if new residual waste disposal capacity is required over the solid waste management plan term.

STUDY INTRODUCTION

- The management of residual waste and measures to prevent its generation has an important role in the region's solid waste management system.
- Approximately 1,000,000 tonnes of residual waste from residential and commercial / institutional sources requires disposal each year.
- Residual waste is currently disposed at the Waste-to-Energy Facility, Vancouver Landfill and three remote landfills.

“Residual waste” for the purposes of this study means:

Non-hazardous waste collected from residential, commercial, and institutional sources that requires disposal.



Findings of the Literature Review

- Each region establishes waste management hierarchy with specific goals
- Landfill and mass burn waste-to-energy are primary options for residuals management world-wide
- US (19%), Canada (3%) & Australia (2%) of residual waste is managed through waste-to-energy
- Japan, Sweden & Germany 99% of residual waste managed through waste-to-energy
- Thousands of mass burn waste-to-energy facilities world-wide
- Alternative technologies have not demonstrated commercial scale viability worldwide



Considerations in Selecting Between Landfilling or Mass Burn Waste-to-Energy

Considerations for jurisdictions selecting between landfilling and mass burn Waste-to-Energy include:

- Policy and regulatory framework
- Land availability
- Landfill tipping fees/transportation logistics
- Energy prices
- Public perception
- Subsidies or carbon credits



Draft Technical Criteria for Evaluating Residual Waste Management Options





Draft Technical Criteria for Evaluating Residual Waste Management Options

Economic



- Overall cost: capital, operational, closure, post closure
- Opportunities for revenue generation: selling recovered materials or energy to markets, reducing transport costs
- Financial risk

Regulatory Compliance



- Meets all applicable environmental and waste management regulations
- Permitting and approval processes required for implementing the system



Environmental

- General environmental factors such as dust, odour, emissions, litter, noise, vectors etc.
- GHG emissions direct and indirect contributions and offsets (avoided GHGs)
- Risk from climate change/natural disasters
- Geotechnical considerations
- Groundwater and surface water protection systems



Draft Technical Criteria for Evaluating Residual Waste Management Options

Resource Use



- Land requirements for facilities and operations
- Energy generation and use potential and proximity
- Opportunities for co-locating complimentary operations (e.g., public reuse and recycling depot services)

Technical Feasibility



- Maturity, reliability and degree to which the system has been proven on a commercial scale
- Compatibility with residual waste as the feedstock material and ability to adapt to changing waste streams
- Capacity and scalability to handle large volumes of waste consistently and meet future needs
- Pre-processing requirements
- Percentage of the residual waste stream effectively processed by the system

Social



- Potential impact on public health and safety
- Public perception and community acceptance of the system
- Job creation during construction and operation



Discussion

- Is there anything missing or that should be added in the technical criteria for evaluating residual waste management options?
- What would you consider the main priorities to guide decision-making for future assessments of residual waste management options?
- Any other feedback or comments?





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Thank you

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Karen Storry, P.Eng

Solid Waste and Recycling Industry Advisory Committee, September 9, 2025

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OPTIONS ANALYSIS PHASE

Purpose and Process

Involves evaluating all input from the Idea Generation phase to produce a list of strategy and action options for engagement.

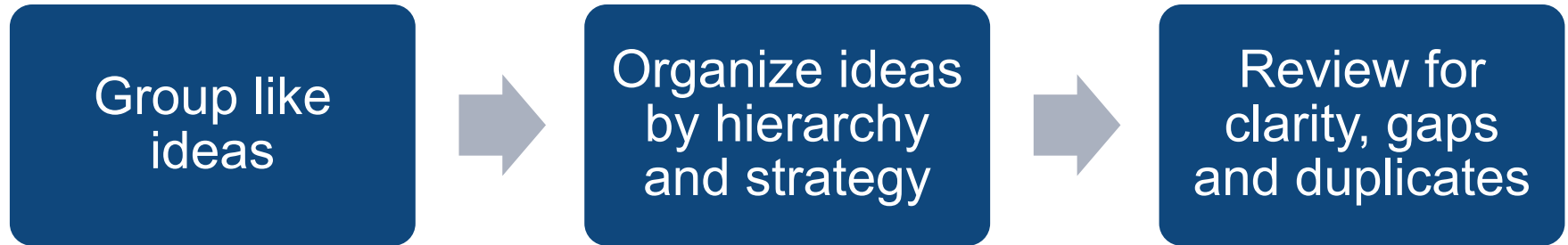


WHAT WILL BE PUBLISHED ON SEPTEMBER 18

- **Draft action options** based on the consolidated ideas organized by hierarchy and strategy
- **Long list of ideas** including which strategy, draft action options, plan component, or strategic approach they were assigned to.
 - Those that did not align with vision and guiding principles and Board Direction were flagged as not recommended by staff
- Stantec's **options analysis results** including the rubric and assumptions used in the process.

IDEA CONSOLIDATION PROCESS

Development of the draft strategies and action options



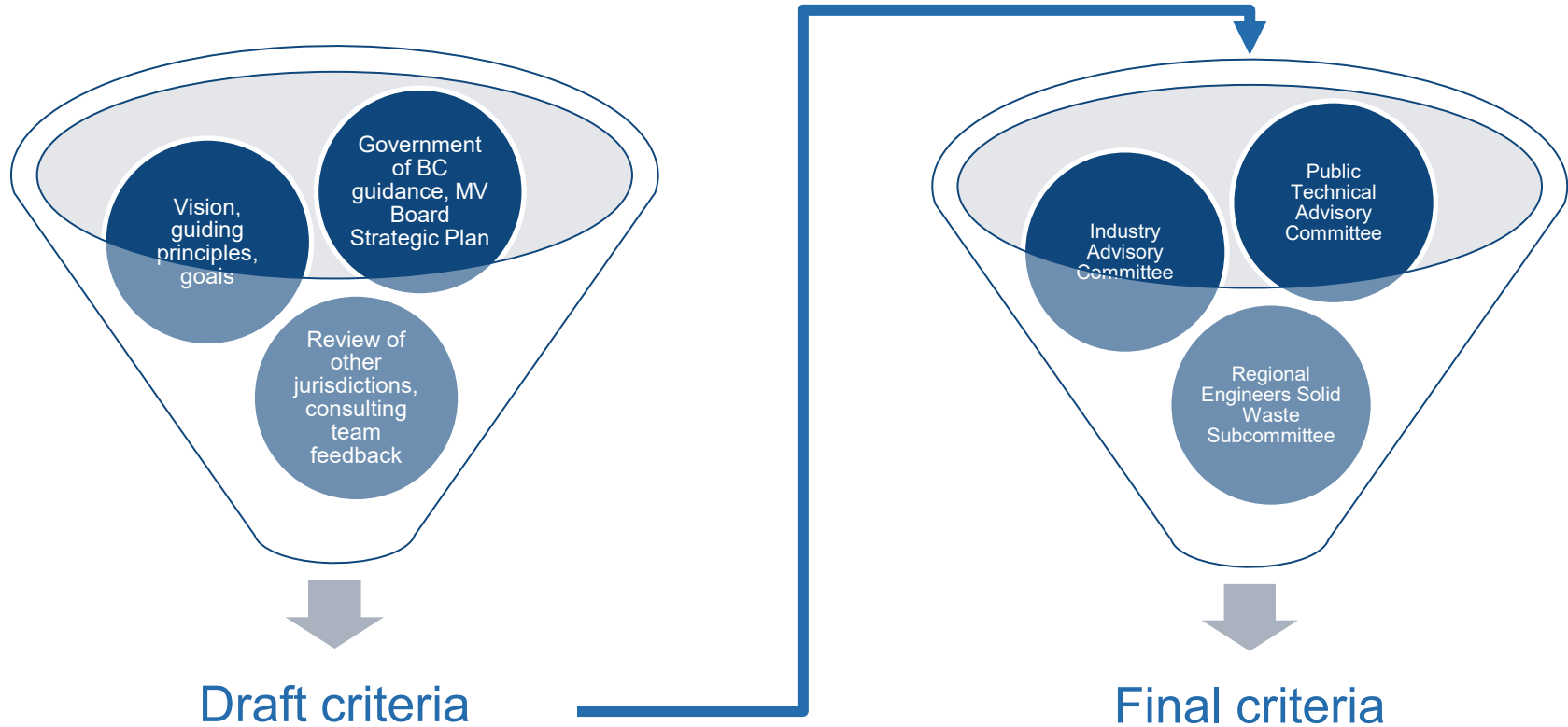
SAMPLE OF DRAFT STRATEGIES AND ACTION OPTIONS

1. Rethink

1.1. Advocate for circular economy policies

- **ID001** Advocate that federal and provincial governments phase in regulations for the prohibition of the import, export manufacture, and distribution of non-essential, non-recyclable materials and products.
- **ID003** Advocate for regulatory approaches that prevent waste through implementation of low carbon, circular design and new business models.
- **ID004** Work with other municipalities and regions across Canada to develop and advocate for implementation of a list of priority circular economy regulations.
- **ID005** Advocate that federal and provincial governments develop regulatory programs to improve reporting and implementation of circular built environment solutions.
- **ID090** Advocate that federal and provincial governments develop regulatory programs to improve reporting and implementation of circular food systems.

EVALUATION CRITERIA DEVELOPMENT



FINAL CRITERIA

General		
<ul style="list-style-type: none">• Practicality of Implementation• Accountability• Transparency		<ul style="list-style-type: none">• Consistency/ harmonization• Collaboration• Resilience
Economic	Environment	Social
<ul style="list-style-type: none">• Affordability• Economic Prosperity• Innovation	<ul style="list-style-type: none">• Circularity• Waste reduction• Greenhouse gas emissions reduction• Environmental stewardship	<ul style="list-style-type: none">• Inclusion• Convenience• Community participation• Supports waste prevention habits and actions

RUBRIC EXAMPLE

Consistency/harmonization – potential to increase efficiency for businesses and reduce confusion for residents

- High – demonstrable improvements to consistency/harmonization are expected
- Medium – no changes to consistency/harmonization are expected
- Low – expected to decrease consistency/harmonization

SAMPLE OF STANTEC'S ASSESSMENT

ID004- Work with other municipalities and regions across Canada to develop and advocate for implementation of a list of priority circular economy regulations.

Affordability		Economic Prosperity		Innovation	
	Assumptions		Assumptions		Assumptions
High	Opportunity for CE regulations to improve affordability for consumers (e.g., ability/right to repair)	High	Generally, CE is expected to increase jobs with a focus on higher levels of the hierarchy (e.g., repair).	High	Such an option would be very new for the region and progressive in all regards.

NEXT STEPS

- Draft strategy and action options and supporting material published on September 18th
- Review information in advance of workshop
- Discuss at October workshop



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Other Business

Jericho Beach



4.1 ZERO WASTE COMMITTEE AND OTHER UPDATES

- Multi-family Waste Reduction Initiatives
- Waste-to-Energy Facility District Energy System update
 - Site preparation starting soon
- Waste-to-Energy Facility Financial Update
- Programs and Policies for Waste Reduction at Public events
- Updated EPR Five Year Action Plan
- Single Use Items Waste Composition Results
 - Follow-up to waste composition study

4.1 ZERO WASTE COMMITTEE AND OTHER UPDATES

Manager's Report

- 2025 Smart Waste Program Report
- Solid Waste Climate 2050 Primer update
- Expansion plans for Langley and North Surrey Recycling Depots
- Options analysis phase engagement
 - PNE engagement
- Tariff Impacts

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Next Steps

Ironworkers Memorial Bridge



5.1 FACILITY TOUR

Reminder

September 18

Meet at: Annacis Research Centre
1400 Lindsey Place, Delta

- free parking available at Annacis Research Centre.
- Please wear long pants, long sleeves, and sturdy footwear (e.g. boots) are required.
- Please wear clothing suitable for being outdoors.



5.2 UPCOMING MEETINGS

October and November meetings

- October 7 in-person meeting: options analysis workshop and discussion on plan outline presented today
- November 4 online meeting: remaining SWMP items and planning for 2026
- Long list of draft actions will be published on September 18 – members will be notified



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Information Items

Ironworkers Memorial Bridge

INFORMATION ITEMS

- 6.1 Regional Waste Flows
- 6.2 Correspondence from HSR Zero Waste
- 6.3 2025 IAC Work Plan



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Thank you

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