

To: Zero Waste Committee

From: Terry Fulton, Senior Project Engineer, Solid Waste Services

Date: June 20, 2025

Meeting Date: July 3, 2025

Subject: **Solid Waste Management Plan Goals and Hierarchy**

RECOMMENDATION

That the GVS&DD Board approve the goals and hierarchy for an updated regional solid waste management plan as presented in the report dated June 20, 2025, titled “Solid Waste Management Plan Goals and Hierarchy”.

EXECUTIVE SUMMARY

Metro Vancouver is developing an updated solid waste management plan, building on the strengths of the current plan and identifying opportunities for accelerating waste reduction and recycling, reducing greenhouse gas emissions, and promoting a circular economy. Considering research and engagement feedback from prior phases of the plan update process, draft goals and a draft waste hierarchy for the updated plan were developed for consideration. The updated goals and hierarchy build on the goals and hierarchy of the existing solid waste management plan, and reflect a focus on waste prevention and transitioning to a circular economy. Unlike in the current solid waste management plan, both waste-to-energy and landfill are considered disposal in the updated hierarchy. Recovery from the waste stream includes both material recovery and creating alternatives to fossil fuels.

The updated goals and hierarchy outline the long-term aims of the plan and provide an organizing structure for actions and strategies. Both member jurisdiction staff and external advisory committees have been engaged in the development of the draft goals and hierarchy.

PURPOSE

The purpose of this report is to seek approval from the GVS&DD Board on the draft goals and hierarchy for an updated solid waste management plan.

BACKGROUND

On June 28, 2024, the GVS&DD Board approved the vision and guiding principles for an updated solid waste management plan following extensive engagement with First Nations, member jurisdictions, adjacent regional district staff, advisory committees, and the public. Subsequently, engagement on idea generation was launched to hear ideas from interested parties on potential actions and strategies to build on Metro Vancouver’s progress to accelerate waste reduction and recycling while reducing greenhouse gases and promoting a circular economy.

The following timeline shows the phases of the solid waste management plan update:



GOALS AND HIERARCHY

The goals and hierarchy outline the long-term aims of the plan and communicate priorities for managing materials. The goals and hierarchy will also provide a structure under which strategies and actions are categorized. Goals are a required component of an updated solid waste management plan, as referenced in *A Guide to Solid Waste Management Planning* provided by the Province. Goals are meant to complement the hierarchy, which has been adapted from the Province's pollution prevention hierarchy. The updated goals and hierarchy build on the goals and hierarchy of the existing solid waste management plan and reflect a focus on waste prevention and transitioning to a circular economy. Unlike in the current solid waste management plan, waste-to-energy and landfill are both considered disposal, whereas energy recovery refers to recovering materials from the waste stream or creating alternatives to fossil fuels.

The goals and associated levels of the waste hierarchy are presented below.

Goals	Components	
1. Enable circular systems that preserve resources	<ul style="list-style-type: none"> Design waste-free systems Transition to a circular economy 	Rethink
2. Minimize waste generation	<ul style="list-style-type: none"> Prevent Use less 	Reduce
3. Keep materials in use as long as possible	<ul style="list-style-type: none"> Share / Donate Repair / Refurbish Repurpose 	Reuse
4. Make it easier to recycle effectively	<ul style="list-style-type: none"> Recycle into new products Compost and anaerobic digestion 	Recycle
5. Recover resources from non-recyclable materials	<ul style="list-style-type: none"> Recover materials from the waste stream Create alternatives to fossil fuels 	Recover
6. Dispose only as a last resort	<ul style="list-style-type: none"> Landfill and mass burn waste-to-energy 	Dispose

The following table describes key updates since the 2011 solid waste management plan:

Goal	Level of Waste Hierarchy	Key Updates from 2011 Solid Waste Management Plan
1. Enable circular systems that preserve resources	Rethink	The idea of transitioning to a circular economy has gained traction within the solid waste and recycling industry since the approval of the 2011 plan, which did not include “Rethink” as part of the hierarchy.
2. Minimize waste generation	Reduce	Metro Vancouver wishes to continue to minimize waste generation, which was also a goal in the 2011 plan.
3. Keep materials in use as long as possible	Reuse	The importance of reuse and repair lead to the creation of an updated goal. Reuse did not have a specific goal in the 2011 plan.
4. Make it easier to recycle effectively	Recycle	While the 2011 plan included a goal to maximize recycling, the updated goal reflects recycling properly rather than recycling as much as possible.
5. Recover resources from non-recyclable materials	Recover	Recover referred to waste-to-energy in the 2011 plan, however has shifted to focus on recovering energy and resources from waste streams that cannot currently be recycled.
6. Dispose only as a last resort	Dispose	Mass burn waste-to-energy is considered disposal in the updated hierarchy and goals, recognizing its primary purpose is managing garbage. The 2011 plan separated landfill and waste-to-energy into separate goals.

Engagement Feedback

Feedback received during both the vision and guiding principles and the idea generation phases of plan development was considered in the goals and hierarchy. Key themes from engagement that influenced the development of the hierarchy are presented below.

Goal	What we heard
Enable circular systems that preserve resources (Rethink)	<ul style="list-style-type: none"> • Support the shift from a linear to circular model of production and consumption • Promote circular product design • Rethink waste rather than simply reducing it
Minimize waste generation (Reduce)	<ul style="list-style-type: none"> • Waste prevention should be a priority of the updated plan

Goal	What we heard
	<ul style="list-style-type: none"> Promote mindful consumer behaviour Reduce wasted food, excess packaging and single-use items
Keep materials in use as long as possible (Reuse)	<ul style="list-style-type: none"> Scale up repair and reuse infrastructure Promote reusable and repairable products Encourage sharing and donation
Make it easier to recycle effectively (Recycle)	<ul style="list-style-type: none"> Strengthen public understanding of recycling to promote participation and reduce contamination Expand opportunities to access recycling services Improve consistency of recycling systems
Recover resources from non-recyclable materials (Recover)	<ul style="list-style-type: none"> Prioritize recycling of materials over using material to create energy Don't count material used as fuel as recycling
Dispose only as a last resort (Dispose)	<ul style="list-style-type: none"> De-emphasize disposal as part of the updated plan

Earlier versions of the draft goals and hierarchy were reviewed with member jurisdiction staff (via the Regional Engineers Advisory Committee and the Regional Engineers Advisory Committee Solid Waste Subcommittee), the Solid Waste Management Plan Public/Technical Advisory Committee, and the Solid Waste and Recycling Industry Advisory Committee. Feedback from these committees contributed to revisions to the draft goals and hierarchy, as described in Attachment 1. A number of members of the Public/Technical Advisory Committee suggested that any management of waste through combustion processes should not be included in the hierarchy. This would be inconsistent with Metro Vancouver's current approach to managing residual garbage, and inconsistent with the Provincial and Federal waste management hierarchies.

Additional Research

In addition to engagement feedback, Metro Vancouver reviewed goals and hierarchies from external jurisdictions, the 2011 solid waste management plan, and the provincial *A Guide to Solid Waste Management Planning*, which recommends a provincial pollution prevention hierarchy but states that a locally relevant hierarchy can be used in its place.

Options Analysis

The options analysis phase of the solid waste management plan update will focus on categorizing and evaluating ideas identified during idea generation engagement and through staff research to determine which strategies and actions become part of a draft updated solid waste management plan. Options analysis criteria based on provincial guidance, the Board Strategic Plan, and the vision & guiding principles of the updated solid waste management plan will be used to assess the suitability of potential strategies and actions. The criteria, incorporating revisions based on advisory committee feedback, are included as Attachment 2. The options analysis phase will also involve a discussion of metrics and targets to measure plan progress.

ALTERNATIVES

1. That the GVS&DD Board approve the goals and hierarchy for an updated regional solid waste management plan as presented in the report dated June 20, 2025, titled “Solid Waste Management Plan Goals and Hierarchy”.
2. That the GVS&DD Board receive for information the report dated June 20, 2025 titled “Solid Waste Management Plan Goals and Hierarchy”.

FINANCIAL IMPLICATIONS

Technical work and engagement on the solid waste management plan updated are included in the approved Solid Waste Services budget.

CONCLUSION

The goals and hierarchy of the updated solid waste management plan were developed considering research and engagement on both vision and guiding principles and idea generation. The goals and hierarchy outline long-term aims to be achieved by the plan and provide a structure by which strategies and actions will be organized. The draft goals and hierarchy were presented to advisory committees in spring 2025 and subsequently updated to reflect feedback. The next phase of the plan update process will focus on evaluating ideas heard from previous phases to determine which actions will form part of the updated solid waste management plan.

ATTACHMENTS

1. Development and Revision of Draft Goals and Hierarchy as a Result of Feedback.
2. Options Analysis Criteria.
3. Presentation re: Solid Waste Management Plan Goals and Hierarchy.

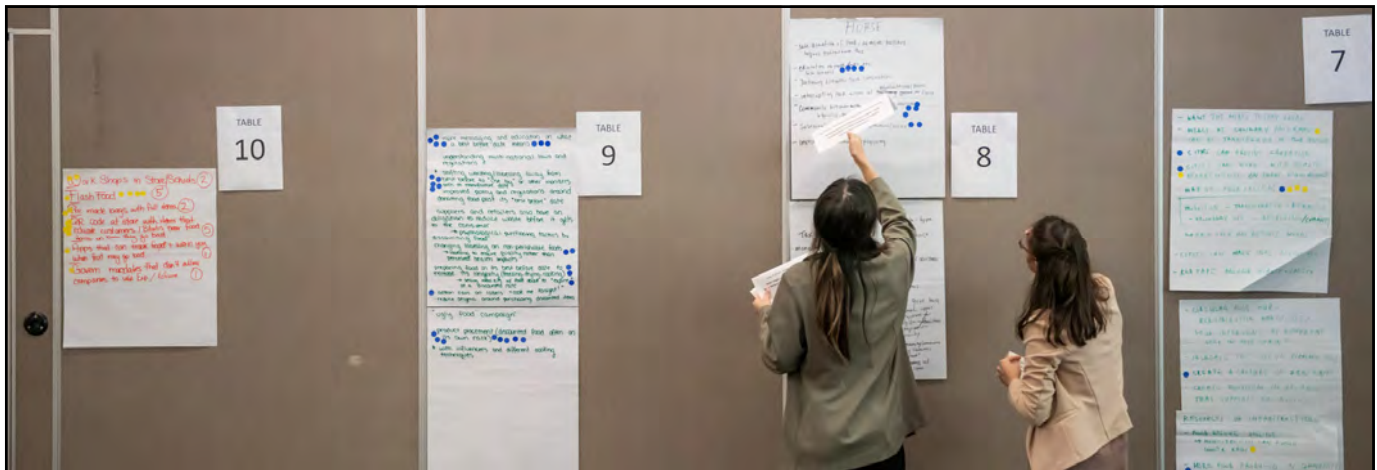
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Development and Revision of Draft Goals and Hierarchy as a Result of Feedback

Initial Draft	Examples of Feedback Considered	Revised Draft
Prioritize waste prevention (Reduce) <ul style="list-style-type: none"> Prevent Use Less 	<ul style="list-style-type: none"> Circular economy is not called out enough and is so important – need a singular distinctive goal that supports a circular economy “Prioritize waste prevention” is very broad and could be broken into two goals More goals needed higher up the hierarchy Consider including “rethink” before prevent and reduce Have wording on how reducing waste is tracked 	Enable circular systems that preserve resources (Rethink) <ul style="list-style-type: none"> Design waste-free systems Transition to a circular economy
		Minimize waste generation (Reduce) <ul style="list-style-type: none"> Prevent Use Less
Keep materials in use as long as possible (Reuse) <ul style="list-style-type: none"> Reuse for original purpose Repair Repurpose 	<ul style="list-style-type: none"> Consider adding “Share” under reuse Unclear where under reuse food donation fits Distinction between “reuse for original purpose” and “repair” is unclear 	Keep materials in use as long as possible (Reuse) <ul style="list-style-type: none"> Share/Donate Repair/Refurbish Repurpose
Make it easier to recycle effectively (Recycle as Material)	<ul style="list-style-type: none"> The proposed hierarchy doesn’t show where composting fits Composting and anaerobic digestion are not included 	Make it easier to recycle effectively (Recycle) <ul style="list-style-type: none"> Recycle into new products Compost and anaerobic digestion
Make it easier to recycle effectively (Recycle as Energy)	<ul style="list-style-type: none"> “Recycle as energy” is confusing/not clear “Recycling for energy” isn’t actually recycling Recycling should be only for materials Materials are more valuable than energy 	Recover resources from non-recyclable materials (Recover) <ul style="list-style-type: none"> Recover materials from the waste stream Create alternatives to fossil fuel
Dispose of remaining garbage responsibly (Dispose) <ul style="list-style-type: none"> Landfill and Waste-to-Energy 	<ul style="list-style-type: none"> Goal to prevent as much disposal as possible seems to be missing There should be differentiation between waste-to-energy disposal vs. recycling for energy 	Dispose only as a last resort (Dispose) <ul style="list-style-type: none"> Landfill and mass burn waste-to-energy

Options Analysis 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



Zero Waste Conference 2023

Solid Waste Management Plan Update

DRAFT GOALS AND HIERARCHY

Terry Fulton, P.Eng.

Senior Project Engineer, Solid Waste Services

Zero Waste Committee, July 3, 2025

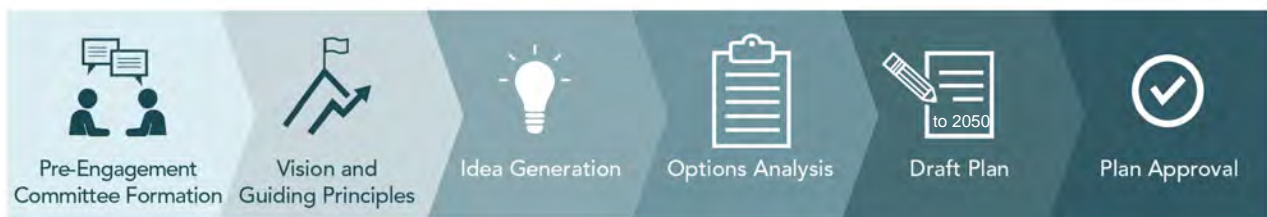
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PROJECT TIMELINE UPDATE



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PLAN COMPONENTS

Vision & Guiding Principles

- Set the plan direction and reflect fundamental values

Goals

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

Metrics & Targets

- A way of measuring progress

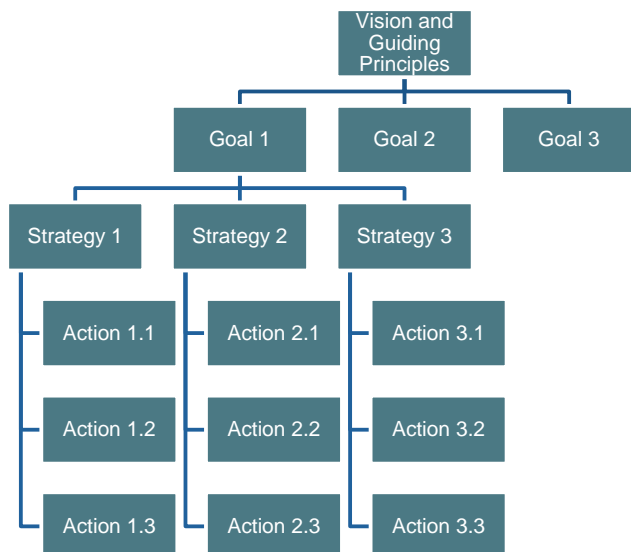
Strategies & Actions

- Product of idea generation and options analysis

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ORGANIZING THE PLAN



Goals – long term aims to be achieved as an outcome of the plan

Strategies – approaches to accomplish the plan goals

Actions – specific programs, policies and initiatives

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DRAFT HIERARCHY AND GOALS

Goals	Components	
1. Enable circular systems that preserve resources	<ul style="list-style-type: none"> Design waste-free systems Transition to a circular economy 	Rethink
2. Minimize waste generation	<ul style="list-style-type: none"> Prevent Use less 	Reduce
3. Keep materials in use as long as possible	<ul style="list-style-type: none"> Share / Donate Repair / Refurbish Repurpose 	Reuse
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6. Dispose only as a last resort	<ul style="list-style-type: none"> Landfill and mass burn waste-to-energy 	Dispose
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CREATING THE DRAFT GOALS AND HIERARCHY

Engagement Feedback

Goal	What we heard
Enable circular systems that preserve resources (Rethink)	<ul style="list-style-type: none"> Support the shift from a linear to circular model of production and consumption Promote circular product design Rethink waste rather than simply reducing it
Minimize waste generation (Reduce)	<ul style="list-style-type: none"> Waste prevention should be a priority of the updated plan Promote mindful consumer behaviour Reduce wasted food, excess packaging and single-use items
Keep materials in use as long as possible (Reuse)	<ul style="list-style-type: none"> Scale up repair and reuse infrastructure Promote reusable and repairable products Encourage sharing and donation
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CREATING THE DRAFT GOALS AND HIERARCHY

Engagement Feedback

Goal	What we heard
Make it easier to recycle effectively (Recycle)	<ul style="list-style-type: none"> Strengthen public understanding of recycling to promote participation and reduce contamination Expand opportunities to access recycling services Improve consistency of recycling systems
Recover resources from non-recyclable materials (Recover)	<ul style="list-style-type: none"> Prioritize recycling of materials over using material to create energy Don't count material used as fuel as recycling
Dispose only as a last resort (Dispose)	<ul style="list-style-type: none"> De-emphasize disposal as part of the updated plan

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EVALUATION CRITERIA

For developing options

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

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