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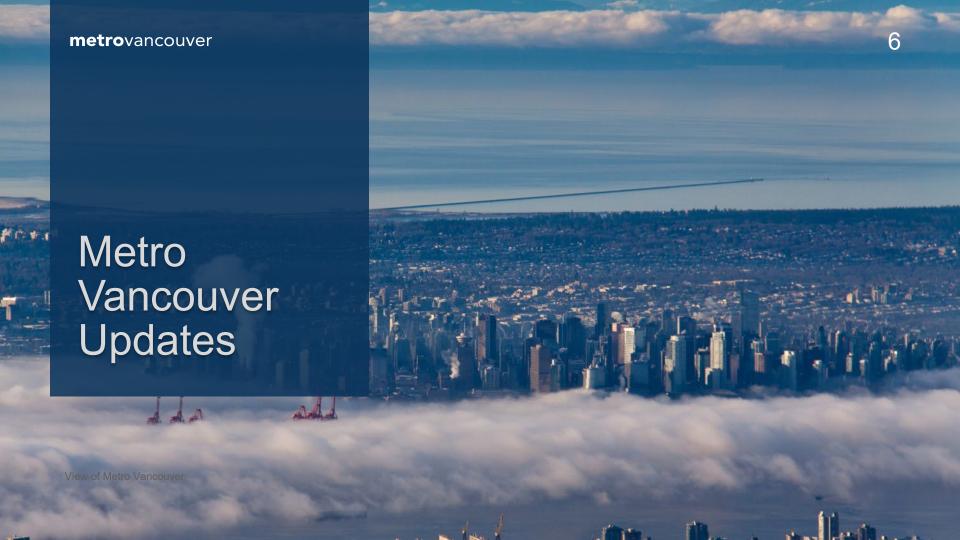
AGENDA

- 1. Welcome
- 2. Agenda November 21, 2024
- 3. Meeting Notes September 13, 2024
- 4. Action/Standing Items
- 5. November 7, 2024 ZWC/PTAC Public Presentation Day Debrief
- 6. Metro Vancouver Updates
- 7. Working Group Presentations
- 8. Additional Discussion on Solid Waste Management Plan Update Idea Generation
- 9. Other Business
- 10. Information Items











Transfer Station recycling bins

Solid Waste Management Plan Update

Terry Fulton, P.Eng.

Senior Project Engineer, Solid Waste Services

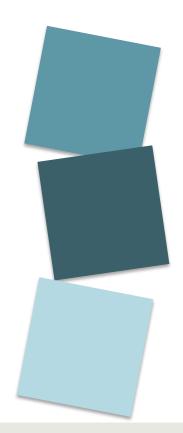
Solid Waste Management Plan Update Public/Technical Advisory Committee Meeting, Nov 21, 2024

PLAN TIMELINE



we are here

FROM IDEAS TO PLAN



Idea Generation

- Focus areas created based on feedback from vision and guiding principles phase
- Will result in set of potential actions and strategies

Options Analysis (Subsequent Phase)

 Evaluation criteria will be developed and applied to the ideas generated in previous phase



ISSUES/OPPORTUNITIES DISCUSSION QUESTIONS

Since the Integrated Solid Waste and Resource Management Plan was approved in 2011, Metro Vancouver's waste generation rate has decreased 11%, while our recycling rate has increased from 57 to 65% – nearly twice the Canadian average recycling rate. **What actions can build on our success to:**

- Rethink and prevent waste in the first place?
- Enhance accountability for eliminating waste?
- Leverage knowledge and expertise through collaboration?
- Increase participation and reduce contamination in organics and recycling programs?
- Promote confidence in recycling systems?
- Help us expand inclusive programs and services?
- Plan for future infrastructure and systems for waste management across the region?

NEXT STEPS

- Early 2025:
 - Develop draft evaluation criteria
 - Draft goals
 - Report out on idea generation engagement



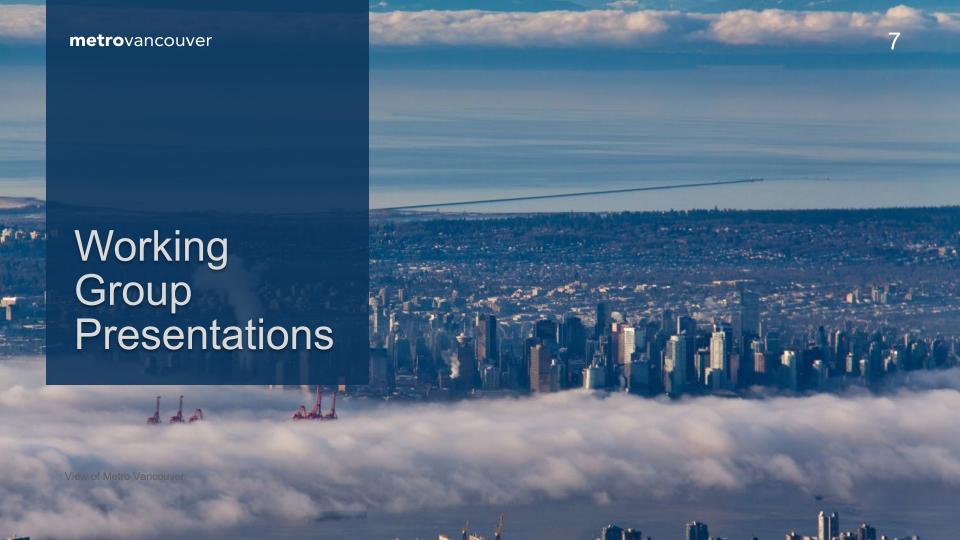


Metro Vancouver Skyline

Thank You

ZERO WASTE COMMITTEE UPDATES - NOVEMBER

- Construction and Demolition Waste Reduction Forum
 - Collaboration with Light House w/ funding through RKI grant
- Engagement Panel Terms of Reference update
- IAC Feedback Summary report
- Manager's report
 - Binners' Project Coffee Cup Revolution
 - 178,042 cups returned, \$17,800 to binners who participated
 - Reuse Research Reports
 - Research on recycling and reuse of bulky household items
 - Project reports available on the Metro Vancouver website







Plastics Working Group Meetings

PTAC members involved

Brianne De Man Doug Schell John Doherty Kevin Huang 黃儀軒 Louise Schwarz Michael Zarbl Sue Maxwell Tara Immell

Metro Vancouver staff provided support and data

On most items, we came to consensus but we will flag the areas with differing view points with this symbol





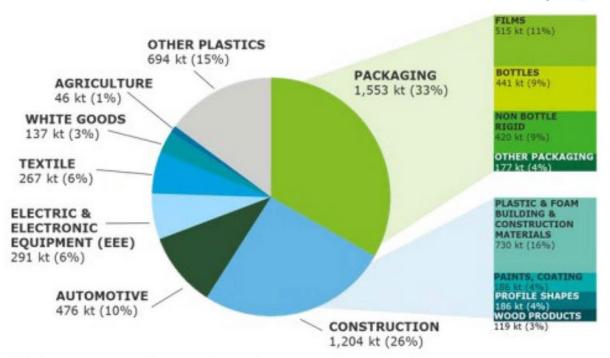
6 meetings conducted

142,287 tonnes of Plastic Waste / Year (2022)



Waste Data

END-MARKETS FOR PLASTIC PRODUCTS IN CANADA (KT, 2016)



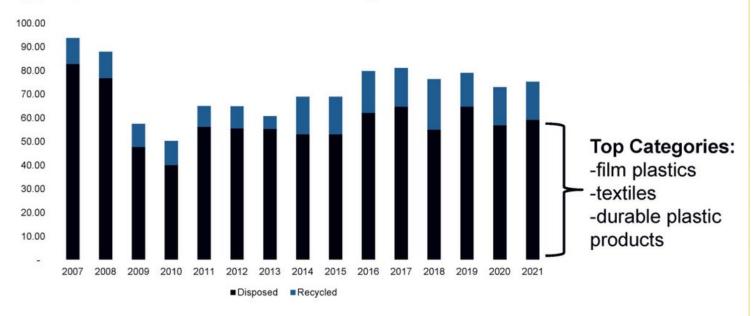
Source: ECCC Economic Study of the Canadian Plastics Industry, Markets and Waste

PTAC Plastics Waste Working Group

Waste Data

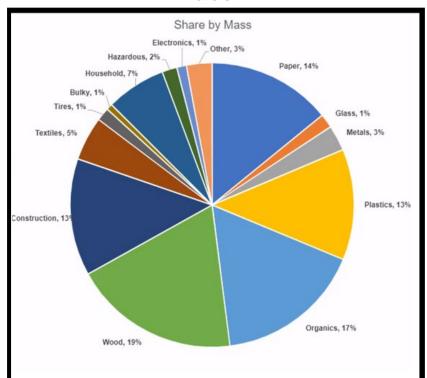
PLASTICS RECYCLED AND DISPOSED

Kg per person in the Metro Vancouver Region

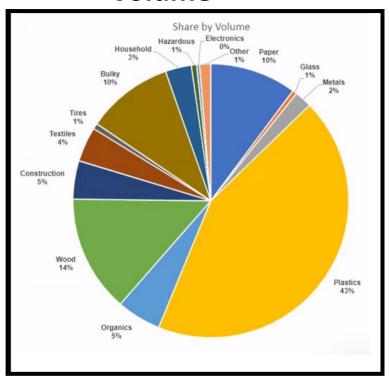


Plastics take up space

Mass

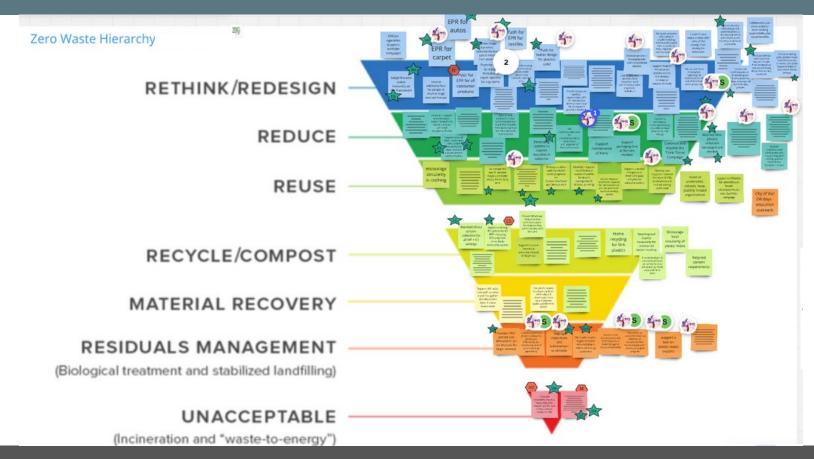


Volume



Hartland Landfill Waste Audit, Info

Waste Hierarchy & Brainstorming







- Pursue Zero Waste
- Advocate
- Reduce
- Create & Support Sharing Networks
- Make Reuse, Maintain and Repair the Norm
- Support Reusables in Food Services
- Tackle Textiles
- Education and Communication







- Improve EPR
- Business Accountability
- Hauler Accountability
- System Accountability





Leverage Knowledge and Expertise...Collaboration



- Educate on impacts
- Model policies
- Build support
- Workshop solutions
- Partnerships including with First Nations
- Ongoing PTAC



Recycling & Organics



- Mandate streams -source separation -MF, ICI, CRD, streetscape
- Support BC system for ICI PPP inc
 EPR
- Collection for residential film plastics (+ glass)
- Tools and support for ICI settings



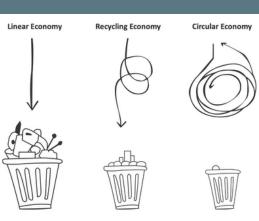
- SUI reduction -education for small ethnocultural businesses and suppliers
- Campaigns in key languages
- Collaboration with diverse communities (meet where they are)





Infrastructure and systems

- Local circularity of resins
- Reuse of large items (pickup)
- Litter clean ups/brand audits
- Facility to process auto shredder fluff
- Close the incinerator and focus on waste prevention
 - Use land for C&D +R reuse
 - Enact a policy to prevent use of destructive thermal waste management



Goals in Canada

- Federal -Zero Plastic Waste by 2030
- Provincial -EPR for textiles, carpet, all PPP, autos (CCME 2009)
- Canada Plastics Pact
 - 100% of plastic packaging being designed to be reusable, recyclable or compostable by 2025
 - 50% recycled/composted by 2050
 - 30% recycled content by 2025



Waste Policies around the world

Global Plastics Treaty

• EU

- 5% less packaging by 2030, 10% by 2035, 15% by 2040
- reduce empty space in pkg -max 50% space
- banning pkg for fresh fruit/veg and beverages in cafes/restaurant by 2030
- banning individual portion condiments and toiletries plus light plastic bags by 2030
- reuse targets for certain beverages -10% must be in reusables, customers can bring their own containers by 2030;
- all pkg recyclable by 2030, min recycled content for plastic pkg, min recycling targets by wt; by 2029 90% single use beverage containers must be collected separately

Helpful Resources

- Federal goals -Government of Canada's plan to achieve zero plastic waste by 2030.
 https://www.canada.ca/en/environment-climate-change/news/2020/10/canada-one-step-closer-to-zero-plastic-waste-by-2030.html
- European union goals -<u>https://www.europarl.europa.eu/news/en/press-room/20240419IPR20589/new-eu-rules-to-reduce-reuse-and-recycle-packaging</u>
- Canada Plastics Pact /EMF Goals: https://plasticspact.ca/the-solutions/
- Unnecessary or Problematic Materials https://plasticspact.ca/wpcontent/uploads/2024/04/CPP_UnnecessaryProblematic_GuidanceDoc.pdf
- Zero Waste Hierarchy https://www.zerowastebc.ca/wp-content/uploads/2022/09/ZWIA-Zero-Waste-Hierarchy-8.0-final.pdf
- UN EP Plastic Report -https://www.unep.org/plastic-pollution

References

- CCME (2009). Canada-wide Action Plan for EPR https://ccme.ca/en/res/cap-epr_e.pdf
- ECCC Economic Study of the Canadian Plastic Industry, Markets and Waste https://publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf



Summary: Focus on Prevention

THE ZERO WASTE HIERARCHY





Metro Vancouver PTAC Food Waste & Organic Working Group

2024-11-21

metrovancouver | SOLID WASTE



🚵 Food Waste & Organic Meetings

PTAC members involved



Ben Liegey (Chair)



Doug Schell



John Doherty



Louise Schwartz



Sue Maxwell



William Selten

6 meetings conducted

- May 13
- June 10
- July 9
- Aug 12
- Sept 13
- Oct 21

Metro Vancouver staff provided administrative support and data/information where requested



533,000 tonnes of Food & Yard Waste / year (2022)





Food Waste & Organic Waste Data

Track & report food waste generated per capita vs. 2016 baseline

- Track SDG 12.3 year over year (2030 target: -50% food waste / capita)
- 2016 baseline = 158 kg food waste per capita

Improve quantification for food waste recycled

- Estimated that 50% Food Waste + 50% Yard Waste
- In the Food Waste part: split residential vs. commercial unknown

Improve reporting /accountability

- Vancouver Food Policy Council's Food Waste Reporting motion (2022)
- Haulers should be required to report data to Metro Vancouver
- Data isn't perfect but exists so let's share it and be transparent



Food Waste & Organic Waste Data

	2016	2018	2020	2021	2022	2023	2030 Target
DISPOSED							
Commercial and Residential Total Waste Disposed [tonnes]	830,461	891,205	845,056	863,306	883,197	906,568	
Food Waste Composition (excluding other compostable organics)	21.4%	14.1%	12.4%	23.9%	17.4%	14.3%	
A: Commercial and Residential Food Waste Disposed [tonnes]	177,872	125,399	104,986	206,368	153,996	129,384	
A1: Residential Food Waste Disposed [tonnes]	113,490	69,436	67,886	108,795	94,081	97,837	
A2: Commercial Food Waste Disposed [tonnes]	64,382	55,963	37,100	97,573	59,915	31,547	
RECYCLED							
Food & Yard Recycled [tonnes] = B + C	434,821	429,690	389,732	401,890	392,044	N/A	
B: Commercial and Residential Food Waste Recycled [tonnes]	217,411	214,845	194,866	200,945	196,022	N/A	TARGET 12-3
B1: Residential Food Waste Recycled [tonnes]	N/A	N/A	N/A	N/A	N/A	N/A	TARGET 12 0
B2: Commercial Food Waste Recycled [tonnes]	N/A	N/A	N/A	N/A	N/A	N/A	
C: Other Compostable Organics Recycled [tonnes]	217,411	214,845	194,866	200,945	196,022	N/A	₩ •<
SDG 12.3							50%
Total Food Waste Generated [tonnes] = A + B	395,283	340,244	299,852	407,313	350,018	N/A	HALVE GLOBAL PER
P: Population	2,497,052	2,550,047	2,725,392	2,766,953	2,807,469	2,854,375	CAPITA FOOD WASTE
Food Waste generated per capita (kg per capita)	158	133	110	147	125	N/A	79
Progress towards SDG 12.3	0%	-19%	-44%	-8%	-27%	N/A	-50%



Food Waste & Organic Waste Data







Waste Hierarchy & Brainstorming

organics to

for: disposal is no longer





RESCUE



UNACCEPTABLE





COMPOSTING (FAMILIES)



RETAIL

ORGANICS (NON FOOD)



ability to sun garburnors (new builds, rence, etc)



WOOD WASTE



Make food waste prevention a big priority for the new plan

Continue and expand education to family housing

• Amplify Love Food Hate Waste campaign

Work across sectors and levels of governments to improve policies

- Align with:
 - Waste prevention policies (National Zero Waste Council)
 - o Food policies (e.g. Regional Planning's work on Food Systems)
 - o Climate policies (e.g. Climate 2050 to include food waste)



Prevention of commercial food waste

Explore tactics to target food waste at source for businesses

- 66% of food waste happening in Vancouver from IC&I sectors
- Restaurants have reduced food waste less effectively than retailers
- Require waste reduction plan/food waste data to get business licence

Provide education, tools and support directly to food businesses

- Easier as haulers have comingled loads from multiple sources
- Frame it as a business opportunity, focusing on positive outcomes
- Provide funding/incentives to track food waste with different solutions

Move to penalties aftereducation

Penalties need to be high enough to change behavior



Foster cross-department collaboration on food security

- Develop systems to support food sharing/recovery + share successes
- Ex: FoodMesh /Foodstash /Vancouver Food Runners

Map out food recovery assets / food waste solutions per stage of the food supply chain Sectors: **Solution Types:**

All Solution Types

Prevention

Rescue

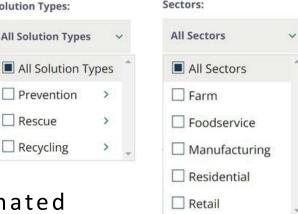
Recycling



Search our database of 1500+ organizations offering products and services to help you reduce food waste.

Clarify what can be donated

Ex: surplus food from buffets can be donated





Make Organics curbside collection and drop off options available across the region for all residents (SF and MF) and ICI sectors

- Have mandatory recycling composting and waste streams for ICI
- Have incentives to drive the organics materials into the compost stream

Use clear bags to enforce bans more effectively

- Some challenges such as privacy issues to consider
- Clear bags implemented successfully in other areas in Canada

Discuss a pilot of Mixed Waste Processing as in the region of Peel

Higher diversion rate when processing food waste and recycling together?

Process organics locally within the region, focusing on quality

Quantify recycling options: composted v.s. animal feed v.s. biogas



Recycling - compostable plastics

Design agile policies that can adapt to changing infrastructure and opportunities to innovate

- Temperature and moisture have the greatest impact
- The optimal conditions vary by material type

Develop a supportive framework for addressing the promise and problems with compostable items that incorporates harmonized education, labeling and messaging

Recognize and catalyze the evolution of organics processing infrastructure that supports the diversion of select, targeted compostable items.

Make it impossible to just choose garbage

Make it simpler with a package service with 3 bins

Use Avoidable vs. unavoidable with caution

- Clarify definitions of what is unavoidable
- Both avoidable and unavoidable should be unacceptable in disposal

Accept the system is not perfect

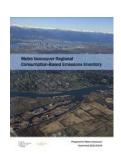
- Perfect separation will never be achieved
- Work to remove organics from garbage
 - Food Waste Disposed: 62% Residential / 38% Commercial
 - o Food Waste Recycled: split unknown

Carbon foodprint

Food waste = 8-10% global GHG emissions

- Source: 2021 UNEP Food Waste Index Report
- 4 x the carbon footpring of the aviation industry





Include indirect emissions

- Territorial emissions: 15 MtCO2e
 - $_{\circ}$ Food = 3%
- Consumption based emissions: 23 MtCO2e
 - Food = 19%

Require carbon footprint reporting

For businesses of a certain size

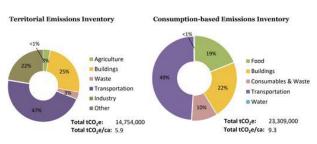


Figure 1: Comparison of the Metro Vancouver Regional Territorial GHG Emissions³ (left) and Consumption-based GHG Emissions (right), 2015



5 Goals and associated Key Metrics

#1: Reduce food waste

Food Efficiency (kg food /capita)

Progress towards SDG 12.3 (%)

Cost of wasted food (\$ / capita)



Food generated

Efficiency My population

Carbon footprint of wasted food (tonnes CO2e / capita)



#3: No organics in garbage

Like in Squamish

#2: Reduce totalorganics

Yard Efficiency (kg yard /capita)

Total Organics Recycled (tonnes)

Total Organics Disposed (tonnes)

#4: Improved foodsecurity

Meals donated

#5: High quality of finished compost

Contamination Rate (%)



Food Waste Policies around the world

Benchmark with international jurisdictions

>> Extend the scope of the Performance Metrics Study by Stantec



July 2024: National Food Donation Tax Incentive

CHINA



April 2021: Anti-food Waste Law

Restaurants must educate consumers, offer portion options, and discourage excessive ordering.



Major Developments and Trends Since September 2023 | Champions 12.3

Major Developments and Trends Since September 2023 Governments Governmental action is key to successful efforts to reduce food loss and waste. Policies put in place by governments can either help or hinder....

Champions 123.org



Helpful Resources

2015: United Nations SDGs (Sustainable Development Goals)



2016: First ever Food Loss & Waste Reporting Standard



2016: Vancouverites required to sort organic waste



2019: First ever Food Policy in Canada





2022: Food Waste
Motion urging to
report food wastedata



BetterTable™ Academy



Food Synergy Movie



ReFED Insights Engine



ReFED's Find food waste solution providers







As a result, there are some points presented that do not have consensus among all members.

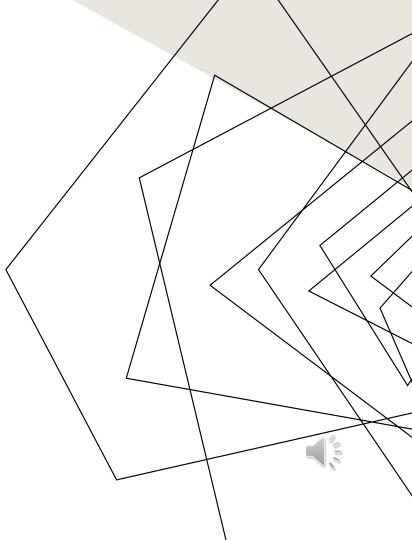
John Doherty Bill Chan **Grant Hankins Brenda Martens**

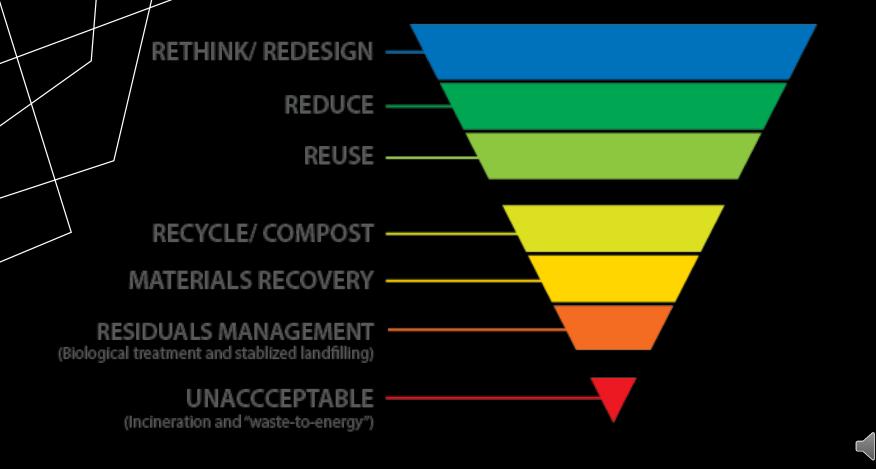
4 AREA OF FOCUS

- Adoption of Zero Waste Hierarchy
- Accountability and Oversight
- Facilitating Markets for Diverted Materials
- Managing Waste Volumes and Surges

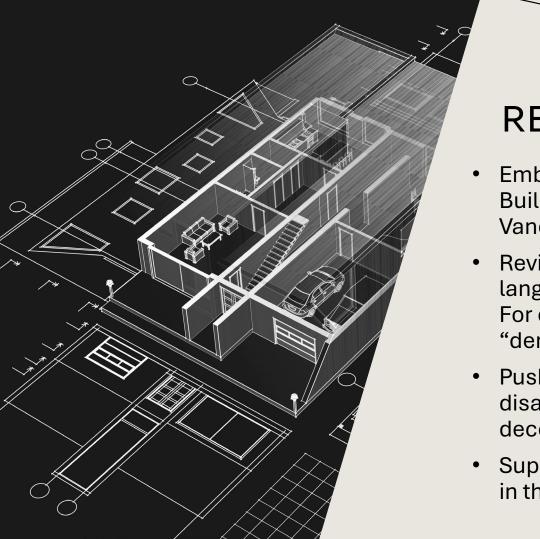
3 PRINCIPLES

- Prioritize those recommendations that are highest on the ZW Hierarchy
- Avoid locking in to linear strategies
- Adopt strategies in whatever capacity possible (regulate, advocate, influence)





ADOPTION OF ZERO WASTE HIERARCHY

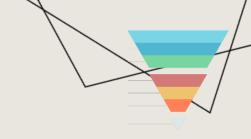


REDESIGN

- Embed Zero Waste Hierarchy and Building ZW hierarchy in Metro Vancouver's procurement and policies
- Review policies and publications to revise language that assumes waste generation.
 For example, "building removal" not "demolition"
- Push for building codes to consider disassembly, repair, flexibility of use, deconstruction, and embodied carbon
- Support capacity building and education in the industry

REDUCE & REUSE

- Require Design for Disassembly/Adaptability (DfD/A), salvage reuse, and recycled content in Metro Vancouver's building and infrastructure procurement
- Produce and distribute specification templates for circular building procurement
- Encourage product design for modularity, reuse, and recycling according to pollution hierarchy



RECYCLING AND MATERIAL RECOVERY

- Work with partners to develop a model for wood waste management
- Work with the province and other partners to establish Extended Producer Responsibility (EPR) for C&D materials
- Phase out incineration of C&D materials and focus on material recovery





ACCOUNTABILITY AND OVERSIGHT







- Consult industry on licensing and regulating haulers, and Implement annual reporting by industry stakeholders, validated by third-party auditors
- Connect projects to haulers and receivers using platforms like Green Halo
- Create a common confidential database to measure reductions/increases through an independent industry platform





ENFORCEMENT AND REGULATION

Ensure enforcement of existing regulations

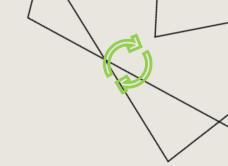
• Incentivize source separation

 Implement significant deterrents for projects, haulers, and receiving facilities that misreport their recycling/waste



FACILITATING
MARKETS FOR
DIVERTED
MATERIALS





MARKET DEVELOPMENT

- Develop an industry registry of supply volumes, reported and validated annually
- Implement a virtual marketplace platform for businesses and asset management
- Streamline the regulation system to foster increased use of salvaged/diverted materials



INFRASTRUCTURE AND LAND USE

 Set up systems to address costs of material storage (using public land or providing support)

 Open land uses to recycling and facilitate land for receiving facility use with industrial rezoning and cost reductions

 Create an environment to increase processing capacity and business opportunities for C&D resources





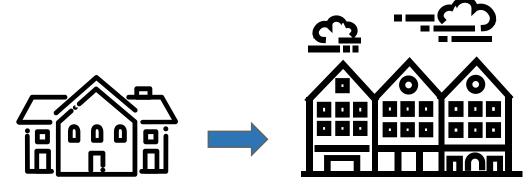
MANAGING
WASTE VOLUMES
AND SURGES



LAND USE CHANGES



- Promote renovation and retrofit options versus new builds
- Create a municipal template and toolkit for building removal bylaws that include house moving and deconstruction



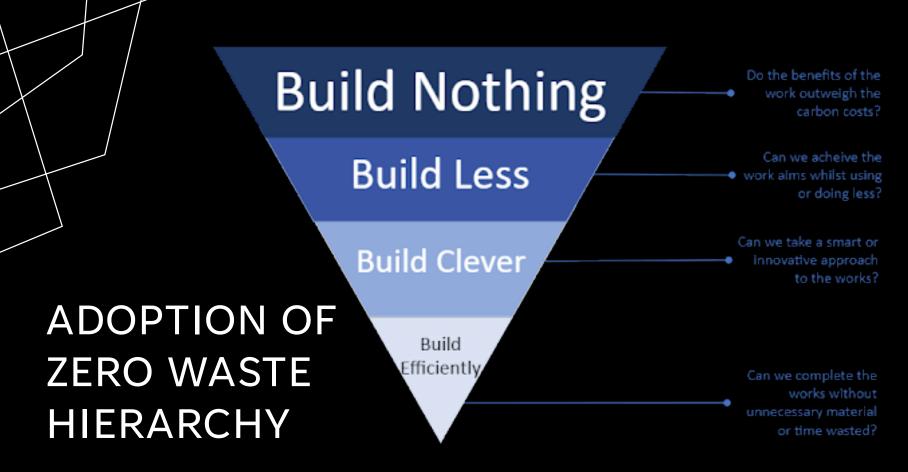




DISASTER PREPAREDNESS & RESPONSE

- Incentivize disaster preparedness to preserve both life and property
- Work with organizations that make decisions during disasters to prioritize waste minimization
- Develop regional strategies for managing waste from natural disasters and land use changes



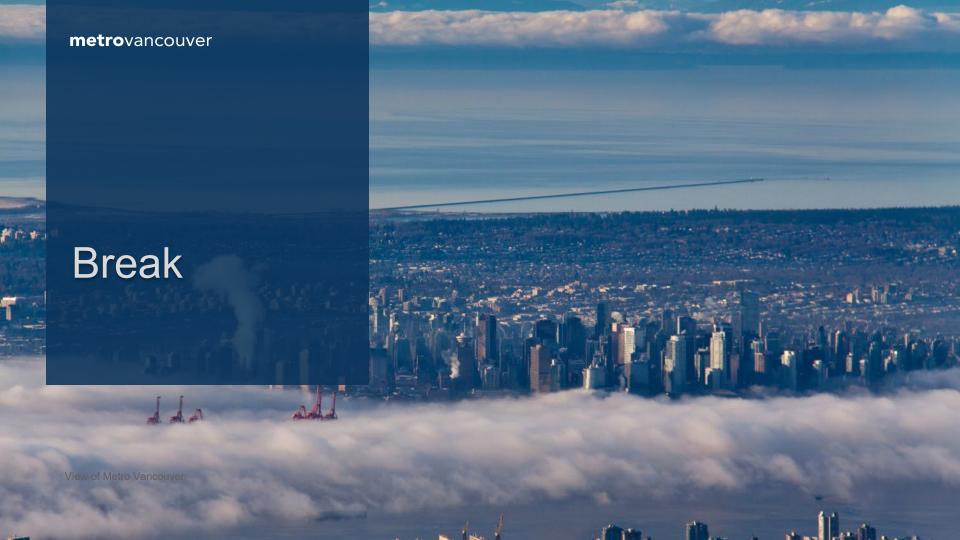






THANK YOU







DISCUSSION ON IDEA GENERATION

- Small group table discussions
- Anything missing from the working groups presentations
- Choose one of the following to discuss at designated table
- 30 min to discuss and provide comments/ideas
- Report back to group with summary of discussion

Discussion questions

As Metro Vancouver updates the plan, what ideas and actions can build on our success to:

Expand inclusive services and programs

Promote confidence in recycling systems

Leverage knowledge and expertise through collaboration

Anything else?



PTAC POTENTIAL 2025 MEETING MONTHS

- Proposed meeting 5 times in 2025
- Keeping with the same time 3-5:30 pm day of week TBD
- Potential Months:
 - February
 - April
 - June
 - September
 - November
- Calendar invitations will be sent in January

PTAC NEW COMMITTEE MEMBERS UPDATE

- Application period closed (Sept 27 2024)
- Applications reviewed by Staff and Consultation and Engagement Panel
- Recommended Committee Members will be brought to Zero Waste Committee and Board
- Additional members joining in new year





Vancouver Skyline

Thank you