

**Welcome to Metro  
Vancouver's  
Independent Consultation  
& Engagement Panel!**

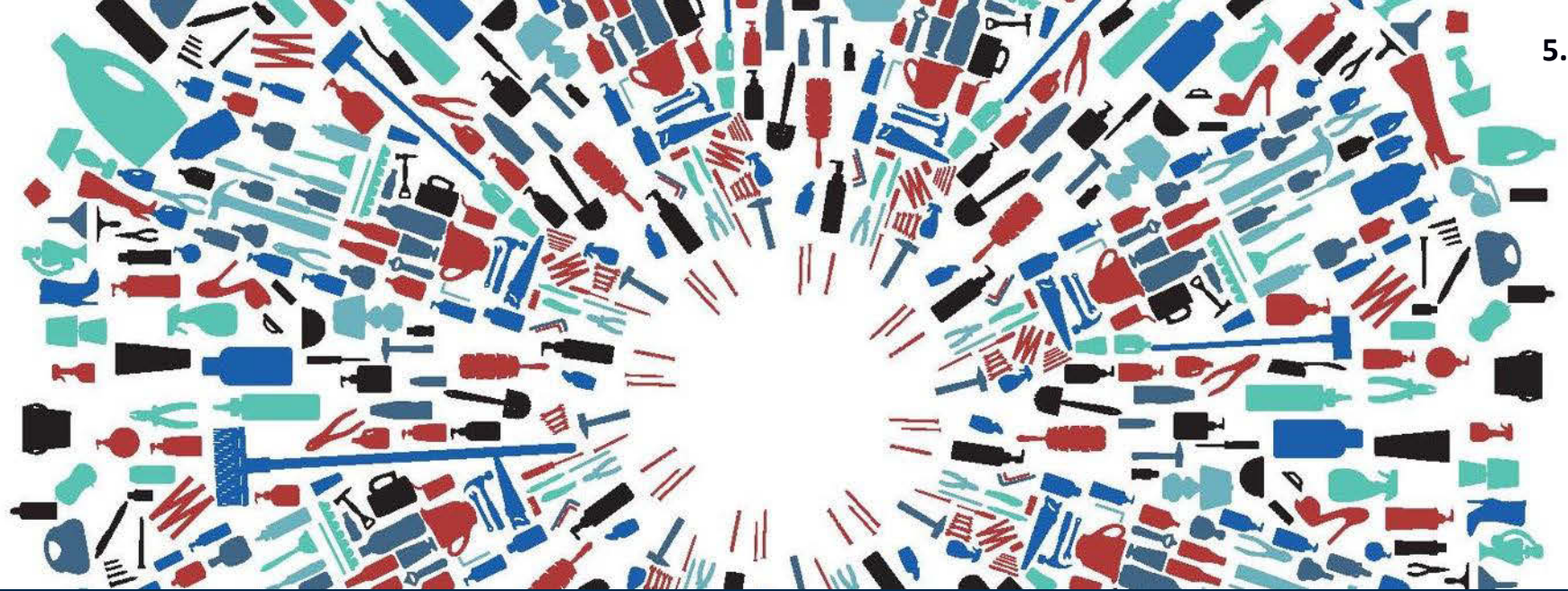
# 1. What We Endorse

- a. Metro Vancouver Staff
- b. The Culture of the Independent Panel
- c. Inclusion: No One Left Behind
- d. Culture of Trying, Evaluating, Learning...  
and Trying Again
- e. Precedent-Setting

## 2. What Needs Further Consideration

- a. More Engagement Means More Feedback
- b. Better Support for Indigenous Engagement
- c. Anticipating the Future is a Big Shift
- d. Trust
- e. Expanding Who Is Engaged Requires New Approaches

**A final word...**



# Solid Waste Management Plan

## ENGAGEMENT UPDATE

Sarah Evanez, MPA, OLY

Division Manager, Strategy and Stakeholder Relations

Zero Waste Committee November 17, 2021

49098890

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# KEY MILESTONES



2011 - Province approves current Plan

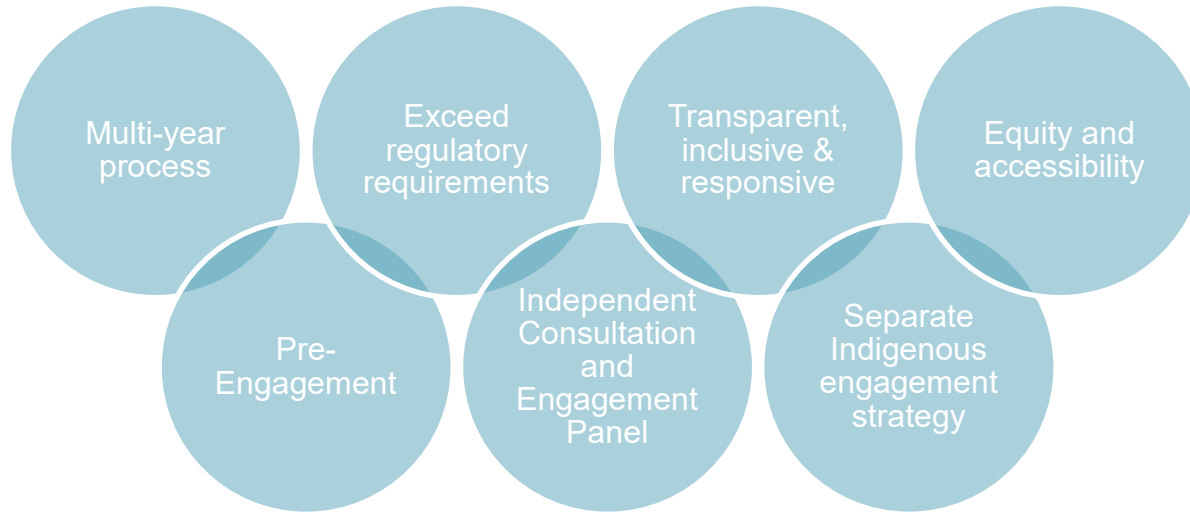
2019 - Board approves initiating Plan review

2020 – Consultation and Engagement Panel formed

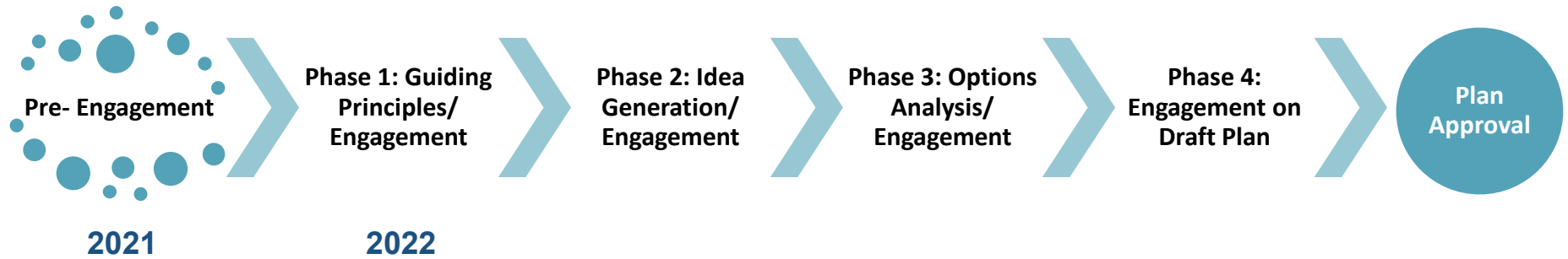
Spring 2021 – Pre-engagement

November 2021 – Board reviews engagement program

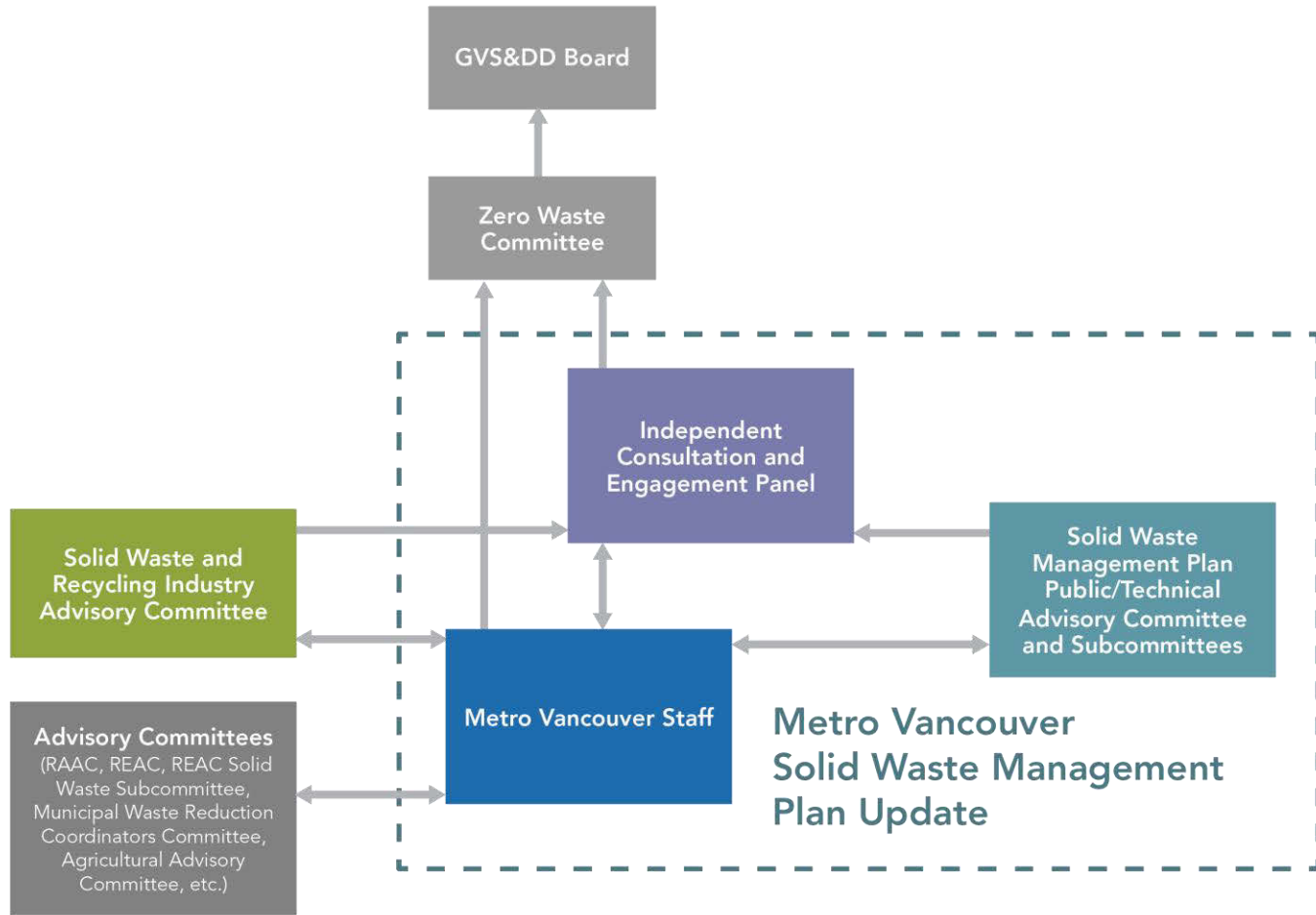
# PUBLIC ENGAGEMENT PROGRAM



# PLAN DEVELOPMENT AND ENGAGEMENT PHASES







# NEXT PHASE: GUIDING PRINCIPLES ENGAGEMENT

- Municipal staff workshop(s)
- Joint Zero Waste and Climate Action Committee workshop
- Public and Technical Advisory Committee(s) meetings
- Workshops, webinars, questionnaires
- Opportunities for stakeholders to present to Engagement Panel



# INDIGENOUS ENGAGEMENT STRATEGY

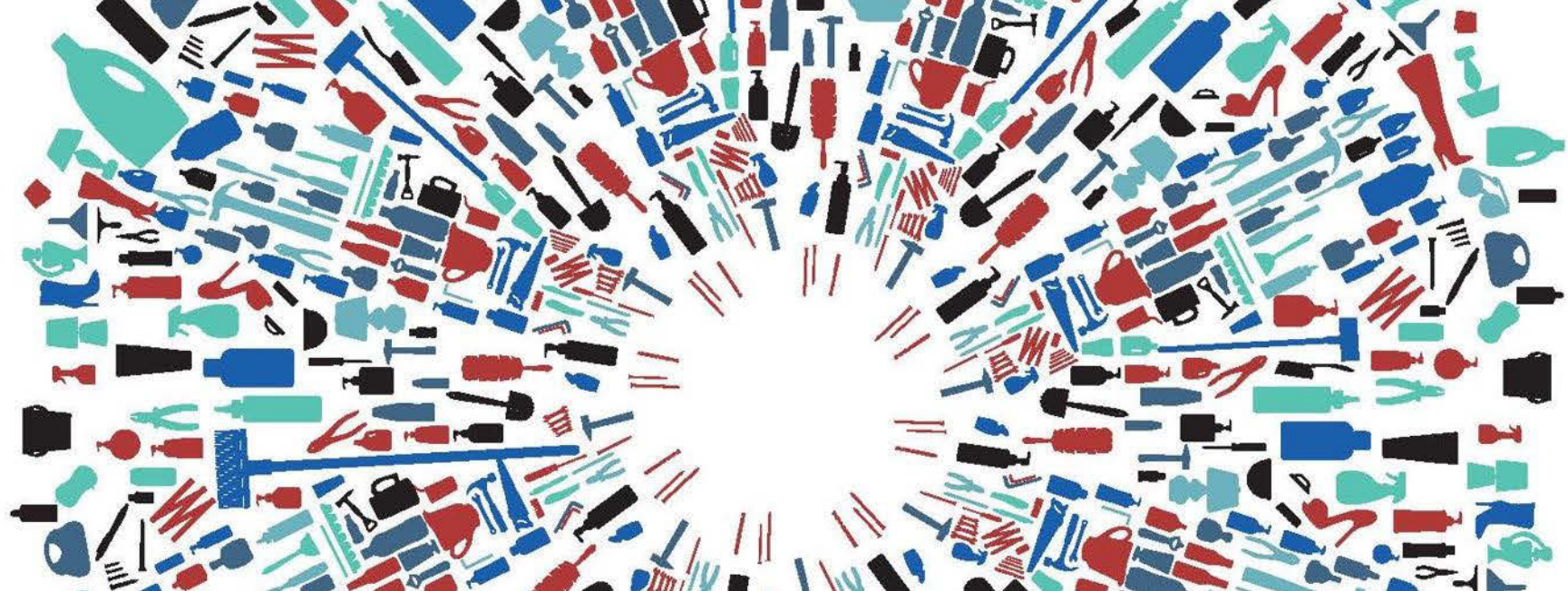
- Separate, iterative, collaborative process
- Includes Indigenous Nations and urban Indigenous peoples
- Guided by Declaration on the Rights of Indigenous Peoples and reconciliation
- Leverages corporate Indigenous engagement initiatives





Thank you

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# Solid Waste Management Plan

PUBLIC/TECHNICAL ADVISORY COMMITTEE(S)

Sandy Young, MEB

Public Engagement Coordinator, Strategy and Stakeholder Relations

Zero Waste Committee November 17, 2021

49112934

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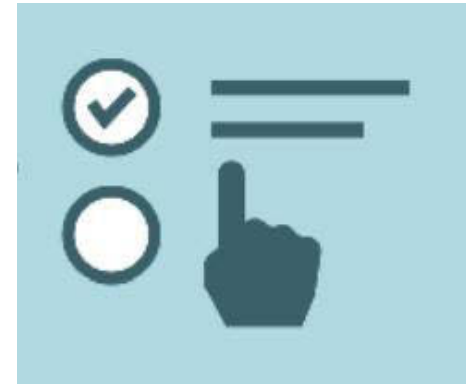
# PUBLIC AND TECHNICAL ADVISORY COMMITTEE(S)

“The role of the advisory committees is to **advise the regional district** on matters pertaining to **solid waste management planning**, typically including but not limited to the **design and implementation of the consultation process**, the **development of guiding principles**, **terms of reference for any planning studies**, **review of reports from each planning step** and the **draft plan.**”

– *Provincial Guide to Solid Waste Management Planning*

# SWMP ADVISORY COMMITTEE(S)

- Forum for public and technical input, required by Province
- Sought feedback on one or two committees, selection criteria
- Issued questionnaire July 23–Sep 15, 2021; 76 completed
- Recommending a single committee following feedback



# SECTORS/INTERESTS REPRESENTED

- Adjacent regional district elected official
- **Agriculture**
- Circular economy
- Construction and demolition
- Extended producer responsibility programs
- Food service
- Government agencies and health authorities
- Large waste generators (e.g. academic institutions, **school boards**, transportation hubs, entertainment sector)
- Multi-family residences (**e.g. residents, landlords, property management associations**)
- Non-governmental/non-profit organizations and environmental stewardship groups





# SECTORS/INTERESTS REPRESENTED CONT

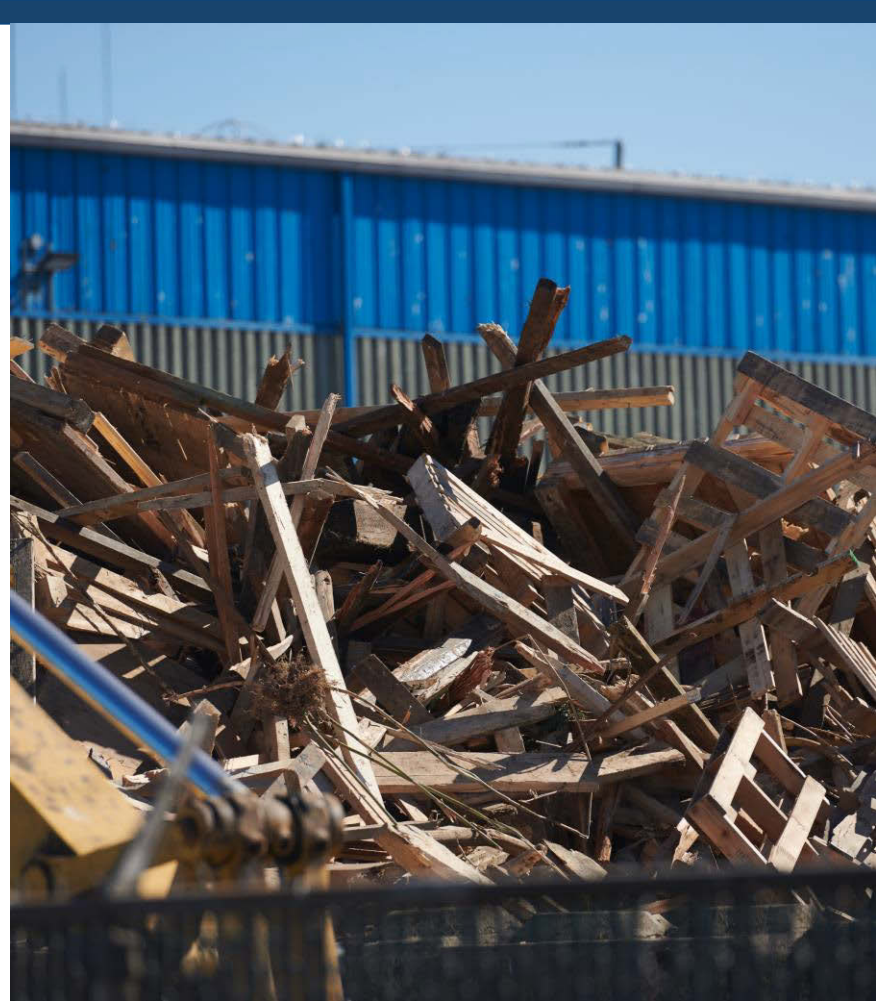
- **Organics processing**
- Public members-at-large (e.g. youth, seniors, and multicultural, accessibility, and resident/community associations)
- Recycling industry
- Reduction/repair/refill industry
- Retail/grocery
- Small- and medium-sized businesses **and business improvement associations, chambers of commerce, boards of trade**
- **Tourism and hospitality**
- Waste industry
- **Workers/unions**

# MEMBER QUALITIES/PERSPECTIVES/EXPERIENCE

- Demonstrates community/committee involvement and the ability to work collaboratively with others (**e.g. openness to different/opposing views**)
- Demonstrates personal commitment to zero waste, circular economy goals, **sustainability, and climate action**
- Demonstrates the ability to advance innovation
- Experienced with waste, **waste reduction** and recycling (i.e. lived experience, technical expertise or both)
- Belongs to a community that is typically underrepresented (e.g. women, LGBTQ2S+, Indigenous persons, immigrants, visible minority, persons with disabilities, youth etc.)
- Represents the interests/perspectives of a group of people/sector

# NEXT STEPS

- Finalize advisory committee structure and selection criteria
- Call for applications, and targeted recruitment of typically underrepresented and equity-denied
- Evaluate applications, including Panel review
- Membership selected by Board





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## Regionally Harmonized Approach to Municipal Single-Use Item Reduction Bylaws

Karen Storry

SENIOR ENGINEER

Zero Waste Committee November 17, 2021  
49110569

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# METRO VANCOUVER SINGLE-USE ITEM REDUCTION INITIATIVES

- Waste composition monitoring
- Behavior change campaign
- Research and support for members

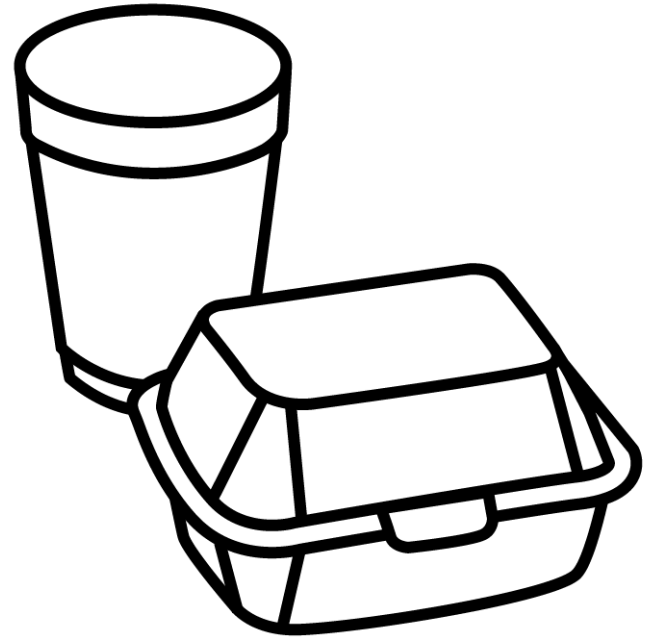


# REGULATORY AUTHORITY

- Metro Vancouver does not have the authority to regulate the sale or distribution of single-use items.
- Municipal single-use item reduction bylaws primary regulatory tool.
- Province continues to work towards province-wide bans.

# PRINCIPLES FOR THE REGIONALLY HARMONIZED APPROACH

- Allowable under the Ministerial Order
- Consistent with local municipal bylaws
- Developed following input from member jurisdiction staff and stakeholders

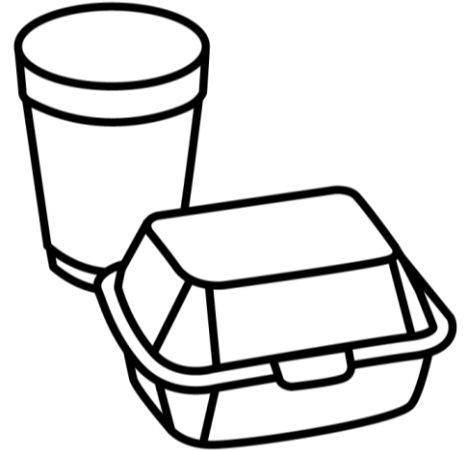


Foam cups and containers



# MEMBER JURISDICTION INPUT

- Sequential, iterative engagement with member staff advisory committees
- Approach evolved with member input:
  - General support
  - Exemptions and clarifications
  - Ability to require reporting of distributed bags
  - Request to Province to allow municipalities to require fees for single-use cups



Foam Containers

# INDUSTRY INPUT

- Support for harmonized approach to single-use items bylaws
- Request for clarification on current exemptions in existing bylaws
- Concerns over requirement for businesses to report the number of bags distributed
- Harmonizing fees on bags



Single-Use Plastic Bag

# REGIONALLY HARMONIZED APPROACH

For member municipality single-use item reduction bylaws

Approach	Items
Ban	 Plastic bags, plastic straws*, plastic stir sticks and foam food service ware containers
Minimum fees	Recycled paper bags (\$0.25), reusable bags (\$2.00)
Only on request by the customer	 Utensils, and alternatives to plastic straws
Reporting	The number of recycled paper and reusable bag distributed in the past 12 months on an as-requested basis

\*not required for accessibility and medical needs

WHAT'S YOUR

SUPERHABIT?

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I SAY NO TO  
DISPOSABLE  
UTENSILS



Metro Vancouver Super Habits Campaign

Thank You.

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# Waste-to-Energy Facility Biosolids Processing System

**Sarah Wellman**

Senior Engineer, Solid Waste Operations  
Solid Waste Services

Zero Waste Committee Meeting, November 17, 2021

49072069

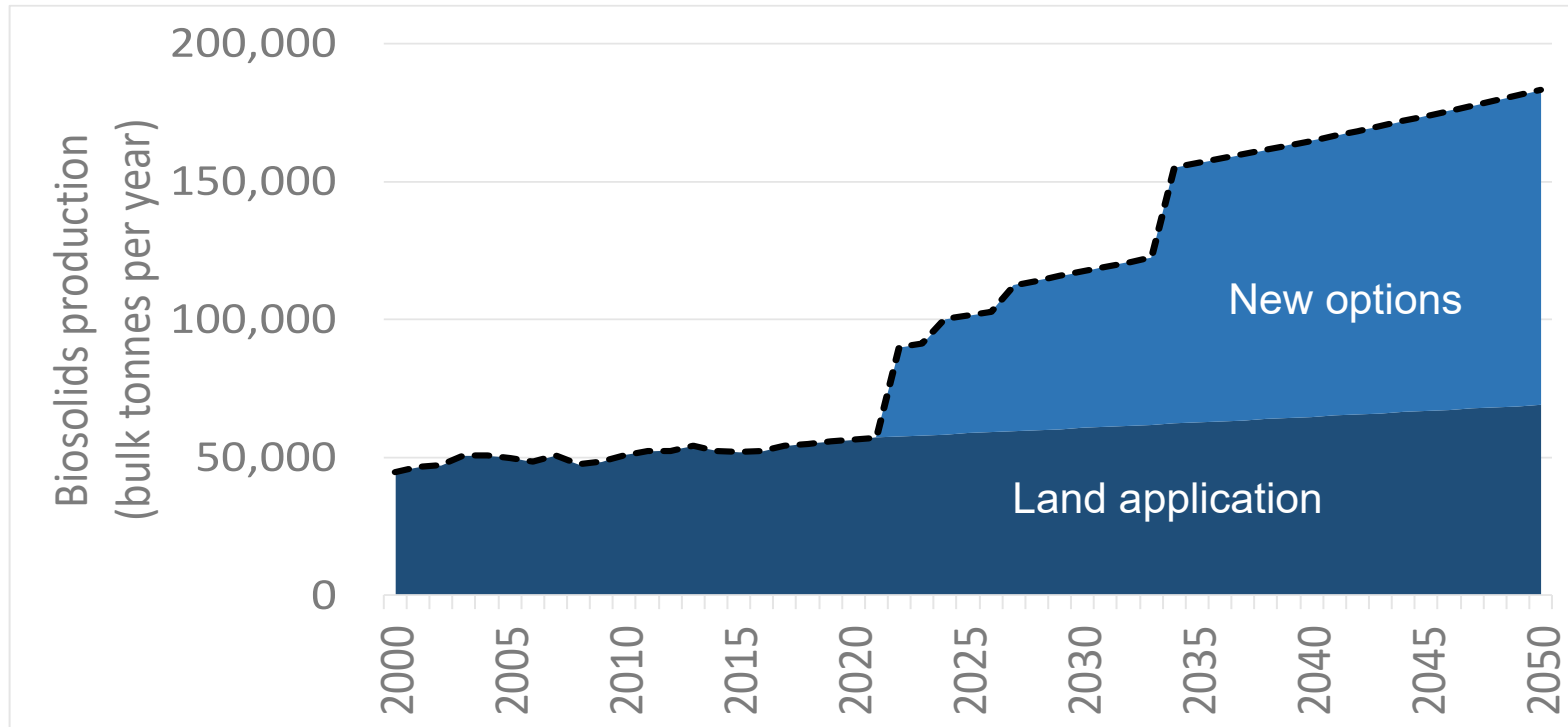
**Lillian Zaremba**

Program Manager, Utility Residuals Management  
Liquid Waste Services

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# BIOSOLIDS MANAGEMENT CONTEXT

New options are needed to manage increasing production of biosolids



# BIOSOLIDS MANAGEMENT AT WASTE-TO-ENERGY FACILITY

- Diversify options to manage increasing biosolids quantities.
- Local, reliable and cost-effective option for managing biosolids.
- Process between 8,500 and 25,000 tonnes per year depending on biosolids program needs.
- Overall costs comparable to other options for biosolids management.
- Does not affect viability of biosolids dryer business case.

# BENEFITS TO OPERATIONS AT THE WASTE-TO-ENERGY FACILITY

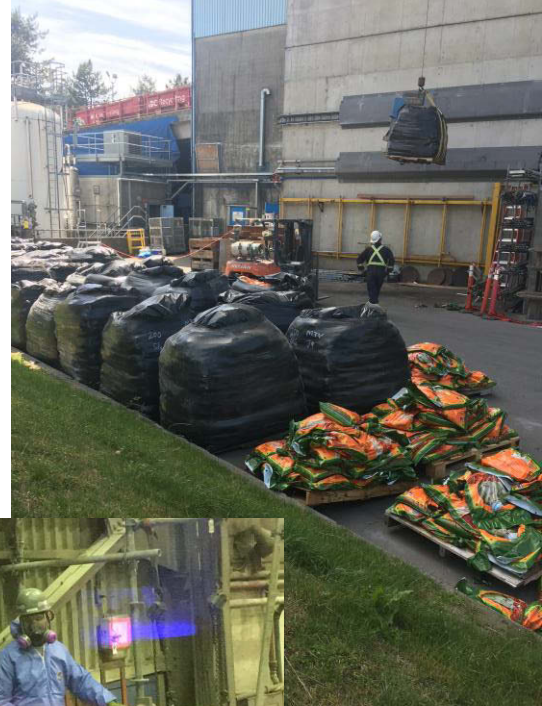
- Restore annual tonnage processed to near historic levels.
- Increase electricity production up to 3%.
- Improve operations due to better moisture control of the feedstock.





# TEST BURNS

- Pilot tests (2017-2019) demonstrated biosolids can be managed without impacting operations or environmental performance.
- Ministry of Environment and Climate Change Strategy approved management of up to 25,000 tpy of biosolids.



# EXPERIENCE

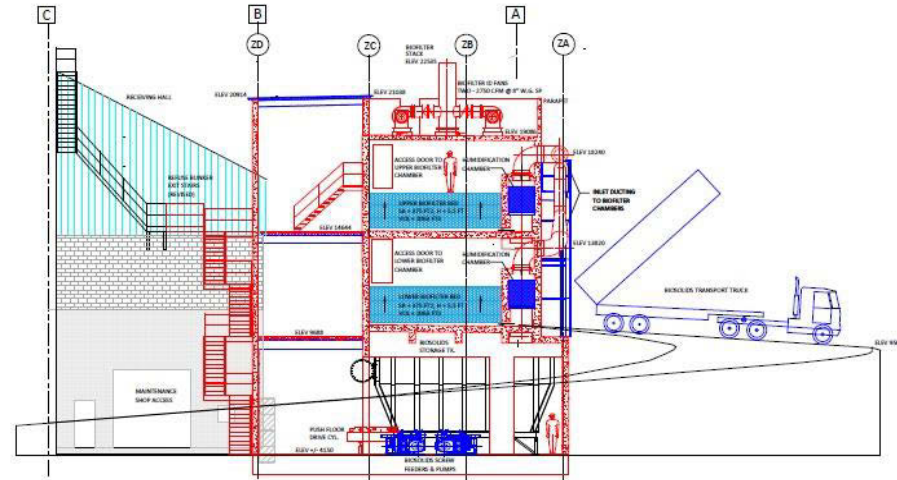
Biosolids are successfully co-managed at several other waste-to-energy facilities in North America.



H-POWER Waste-to-Energy Facility, Honolulu, Hawaii

# BIOSOLIDS SYSTEM PROCESSING FEATURES

- Two biosolids receiving/storage tanks.
- Biosolids injected directly into waste feed chute.
- Biofilter and process air combustion to ensure odour free operations.



# COSTS

Capital costs estimated at \$22 million

- \$16.4M for biosolids receiving/injection system – Liquid Waste
- \$5.6M for upgraded combustion air system and supplementary contingency – Solid Waste

Operating costs funded by Liquid Waste

## NEXT STEPS

If approved by the Board, detailed design will be initiated with a report back to the Board on construction contract approval.

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Metro Vancouver Waste-to-Energy Facility

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Burnaby Eco-Centre

# 2020 Solid Waste and Recycling Annual Report

Maria Lo, P.Eng

Project Engineer, Solid Waste Services

Zero Waste Committee Meeting, November 17, 2021

<https://orbit.gvrd.bc.ca/orbit/llisapi.dll/app/nodes/48728219>

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# SOLID WASTE MANAGEMENT PLAN TARGETS



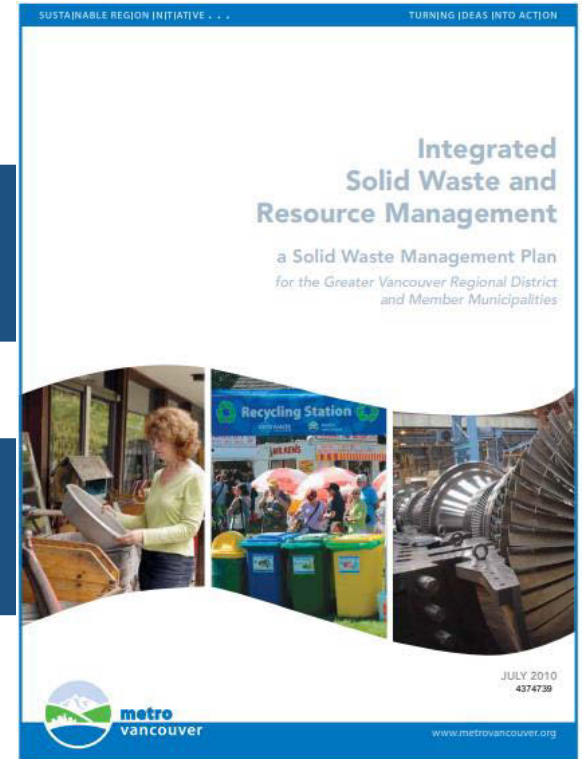
## 10% Reduction in Waste Generation

Generation = Recycled + Disposed



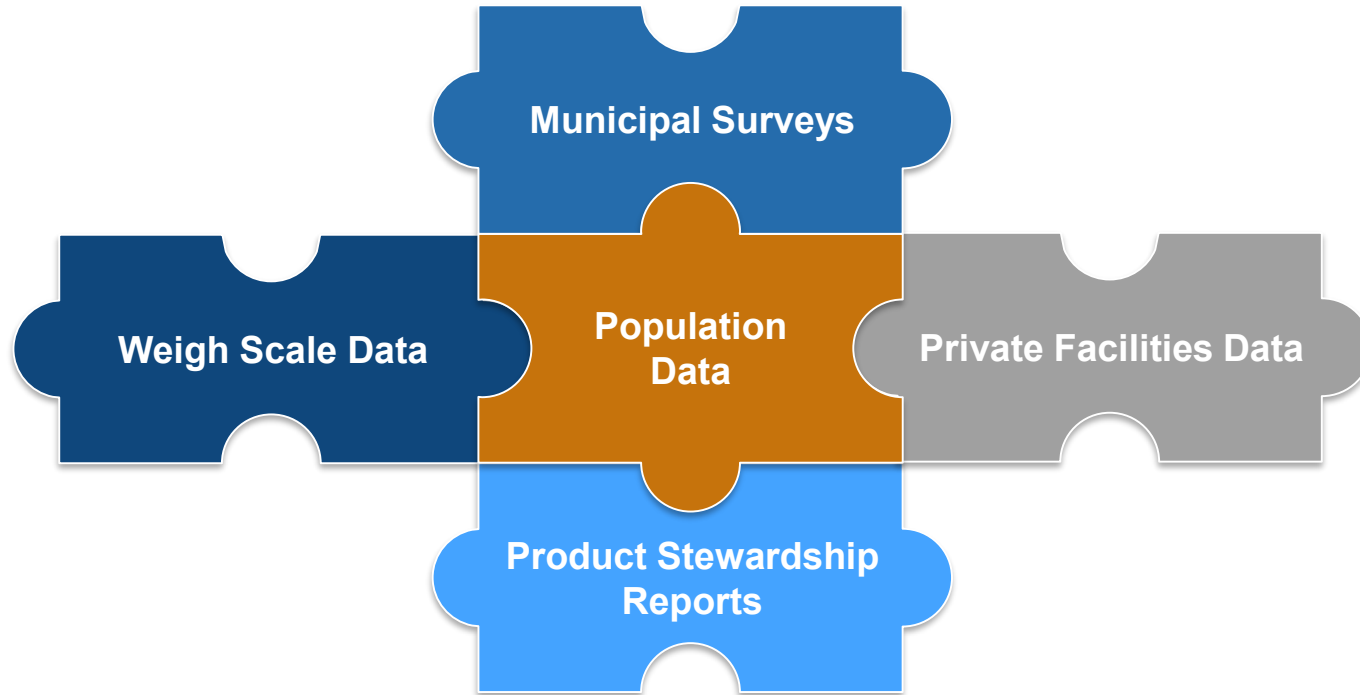
## 80% Recycling Rate

Recycling Rate = Recycled / Generated

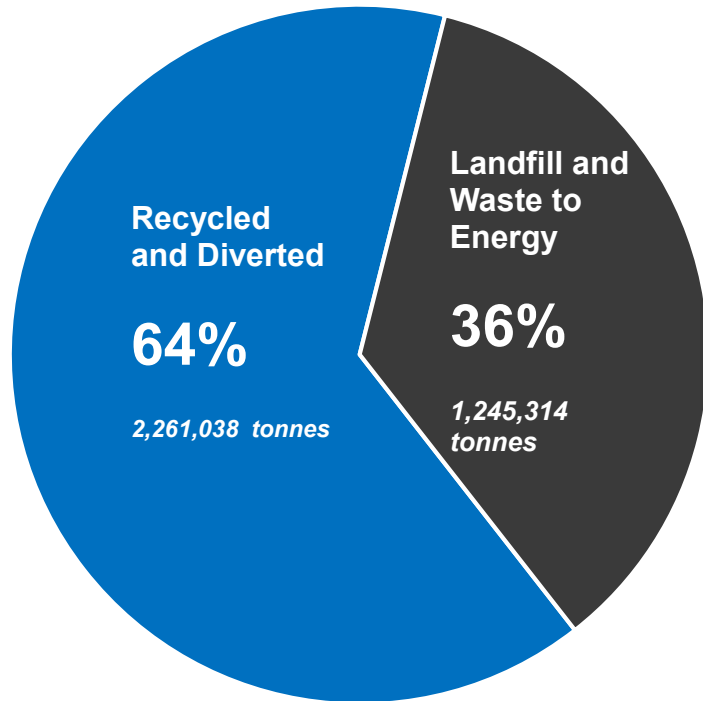




# INFORMATION SOURCES



# RECYCLING RATE



## 2020 Recycling Rate Highlights

- Recycling Rate increase of **1%**
- Commercial waste generation decreased while residential waste generation increased
  - Public health restrictions resulted in reduced business activity and more time spent at home

Year	Recycling Rate
2018	64%
2019	63%
2020	<b>64%</b>

# 2020 SUMMARY

WASTE SECTOR		DISPOSED (tonnes)		RECYCLED (tonnes)		GENERATED (tonnes)			RECYCLING RATE (%)		
		2019	2020	2019	2020	2019	2020	% change	2019	2020	% change
Residential	tonnes	488,218	509,038	571,961	631,627	1,060,179	1,140,665	8%	54%	55%	1%
	tonnes/capita	0.18	0.18	0.21	0.23	0.40	0.41	4%			
Single Family	tonnes	254,516	269,485	439,730	485,419	694,246	754,903	9%	63%	64%	1%
Multi-Family	tonnes	233,702	239,554	132,231	146,208	365,933	385,762	5%	36%	38%	2%
Commercial/ Institutional	tonnes	385,073	354,268	289,764	278,507	674,837	632,776	-6%	43%	44%	1%
	tonnes/capita	0.14	0.13	0.11	0.10	0.25	0.23	-9%			
Construction & Demolition	tonnes	425,713	382,007	1,329,696	1,350,904	1,755,409	1,732,911	-1%	76%	78%	2%
	tonnes/capita	0.16	0.14	0.50	0.49	0.65	0.63	-4%			
Total	tonnes	1,299,005	1,245,314	2,191,421	2,261,038	3,490,425	3,506,352	0%	63%	64%	1%
	tonnes/capita	0.48	0.45	0.82	0.82	1.30	1.27	-3%			
	tonnes/ household	1.27	1.16	2.15	2.10	3.42	3.26	-5%			

# RECYCLING

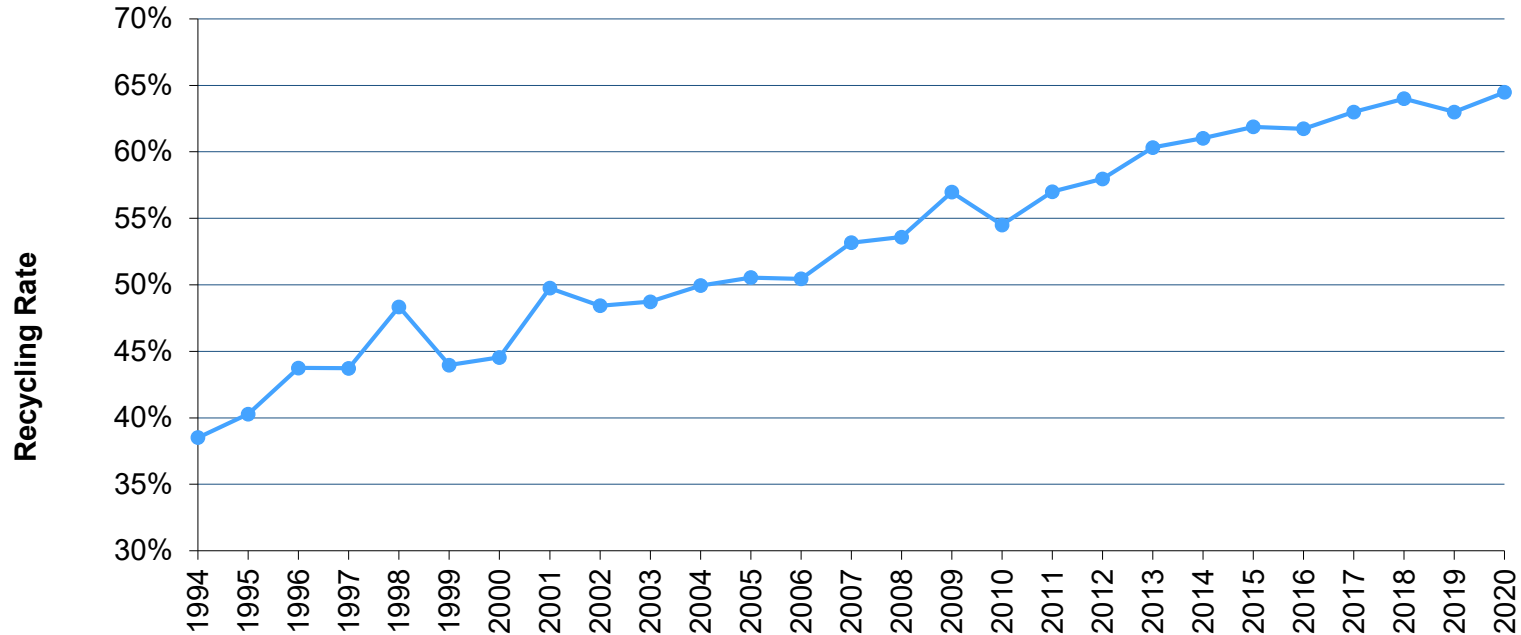
Materials Type Recycled	2019 (tonnes)	2020 (tonnes)	
Asphalt	239,711	295,300	↑
Batteries	12,423	12,952	
Concrete	825,896	802,701	↓
Electronic & Electrical Equipment	11,600	11,650	
Paper/Paper Products	255,263	313,830	↑
Glass	55,718	57,267	
Gypsum	62,904	56,782	
Household Hazardous Waste	22,213	20,406	
Metal	55,708	73,636	↑
Other	15,006	7,001	
Plastic	38,275	44,587	↑
Textiles	487	639	
Tires	22,241	22,068	
Wood	161,420	152,487	
Yard & Food	412,556	389,732	↓
<b>Total</b>	<b>2,191,421</b>	<b>2,261,038</b>	

## 2020 Recycling Highlights

- Decrease in commercial sector organics
- Increase in recycling, particularly organics, in the residential sectors
- Increase in recycling of typical “blue box” materials (paper, metal, plastic, glass).

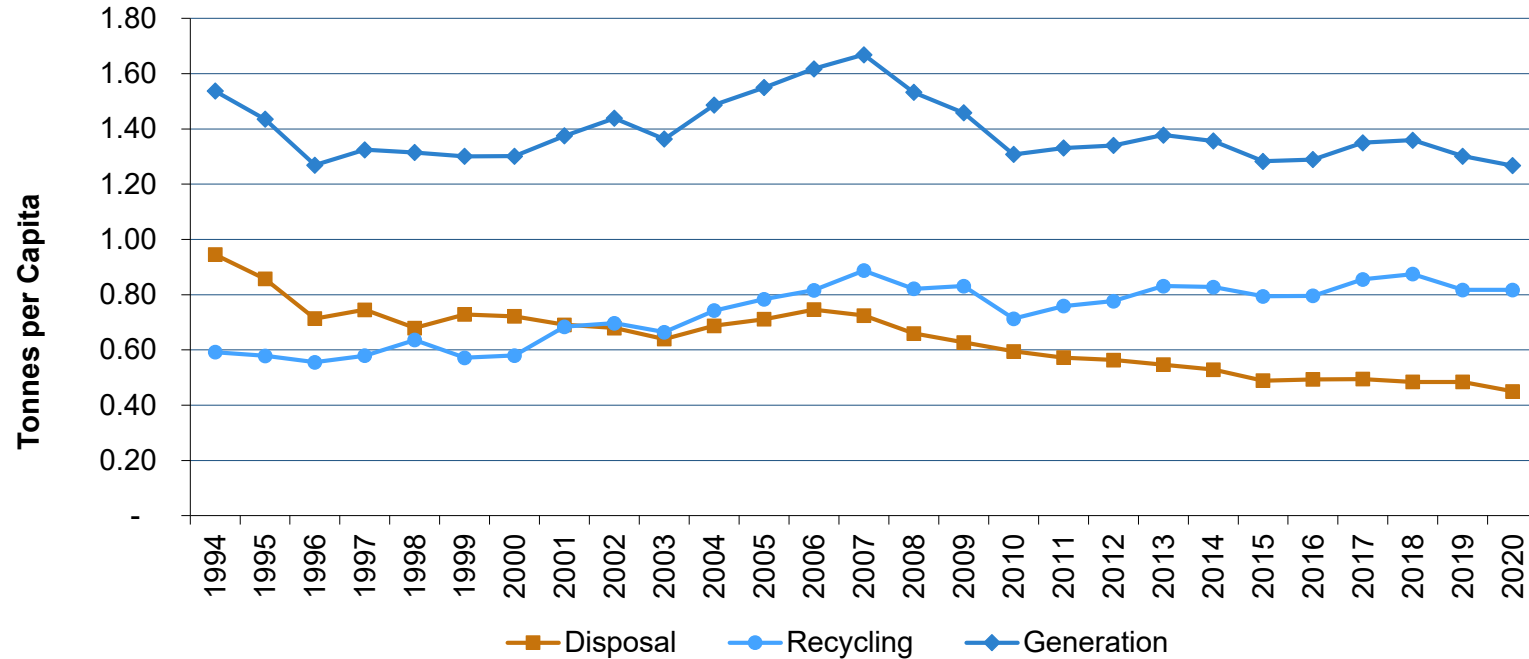
# RECYCLING RATE OVER TIME

From all sectors



# GENERATION & RECYCLING OVER TIME

From all sectors



# REUSE ESTIMATE

Material Category	2019 Annual Reuse (tonnes)	2020 Annual Reuse (tonnes)
Textiles and Accessories - Sold	22,000	4,300 ↓
Textiles and Accessories - Industrial Wipes	6,700	500 ↓
EPR Programs	20,400	17,200
Food	3,500	4,800 ↑
Hotels and Hospitality Sector	900	400 ↓
Office Furniture	1,300	1,200
IT Equipment	1,400	1,400
Construction/ Demolition Materials	5,100	4,800
On-Line for Selected Materials	26,200	27,000
<b>Total</b>	<b>87,500</b>	<b>61,600</b>

## 2020 Reuse Highlights

- Suspended Clothing & household item donations
- Food reuse increased with surge in food bank visits
- Hotel occupancy dropped by 50%, resulting in less reuse



North Shore Recycling & Waste Centre

Questions?

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