

Solid Waste Management Plan Public/Technical Advisory Committee

MEETING #2

September 21, 2022

metrovancover



Regional Recycling and Waste System Overview

Paul Henderson, P.Eng

General Manager, Solid Waste Services

Solid Waste Management Plan Public/Technical Advisory Committee September 21, 2022

54733551

metrovancouver

An aerial photograph of Vancouver, British Columbia, Canada, showing a mix of urban development, green spaces, and mountains in the background. A prominent blue vertical bar on the left side of the image contains the text 'Metro Vancouver Organization' in white. The background shows a dense residential area with various apartment buildings, a large green field, and a road with a train or tram line. In the distance, the city skyline and snow-capped mountains are visible under a clear blue sky.

Metro Vancouver Organization



TOGETHER
WE MAKE OUR REGION
STRONG

metrovancouver

23 Member
Jurisdictions

2.7 Million
Residents

53% of the
population of BC

61% of BC GDP

1.29 million jobs



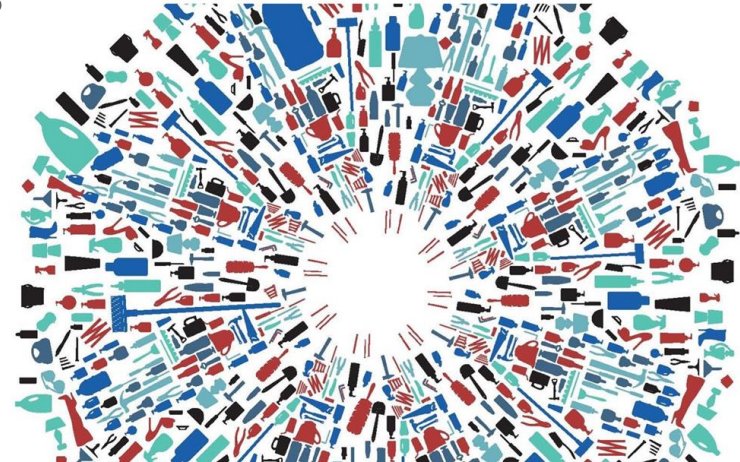
METRO VANCOUVER LEGAL ENTITIES AND SERVICES



METRO VANCOUVER ROLE

Advancing Zero Waste and the Circular Economy

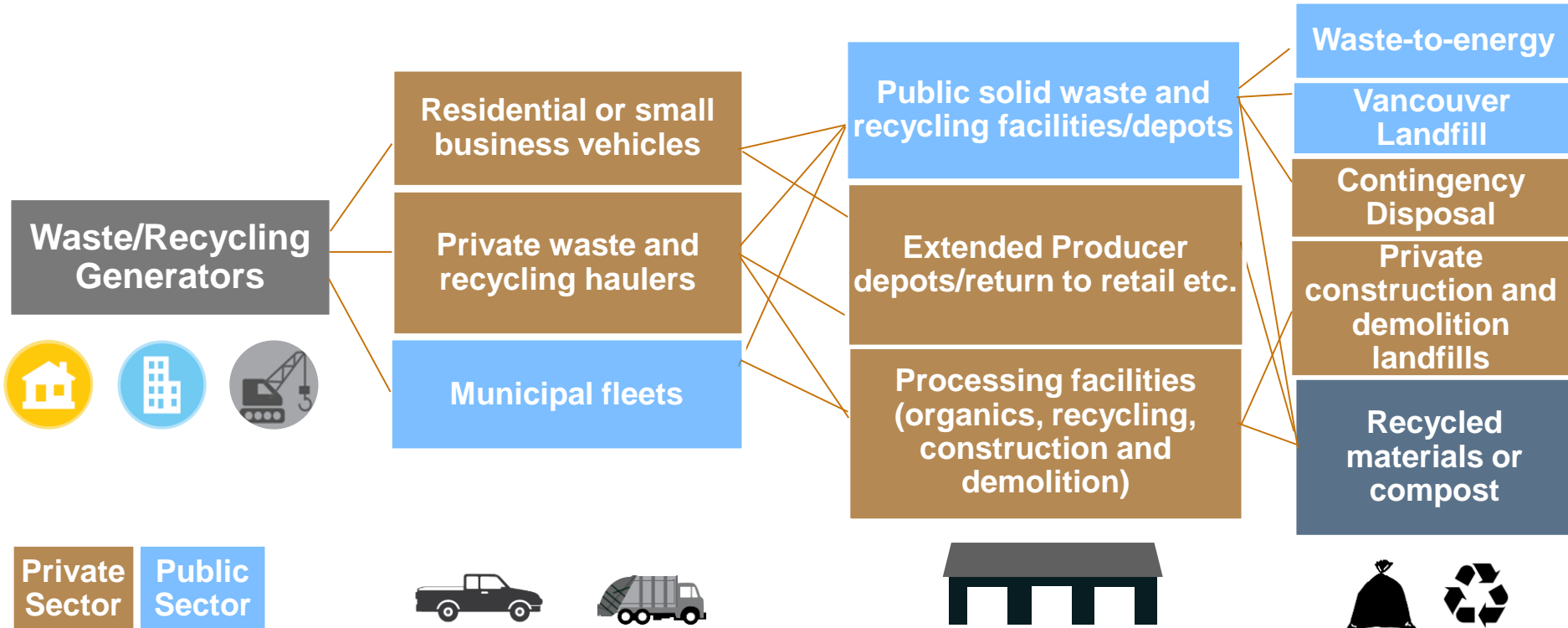
- Solid waste management plan development and progress monitoring
- Solid waste regulatory framework – including secondary regulatory mechanisms such as air emissions and sewer discharge
- Behaviour change and education programs
- Collaboration initiatives
 - e.g. National Zero Waste Council
- Data collection and analysis
- Solid waste facilities operation





Recycling and Waste Management

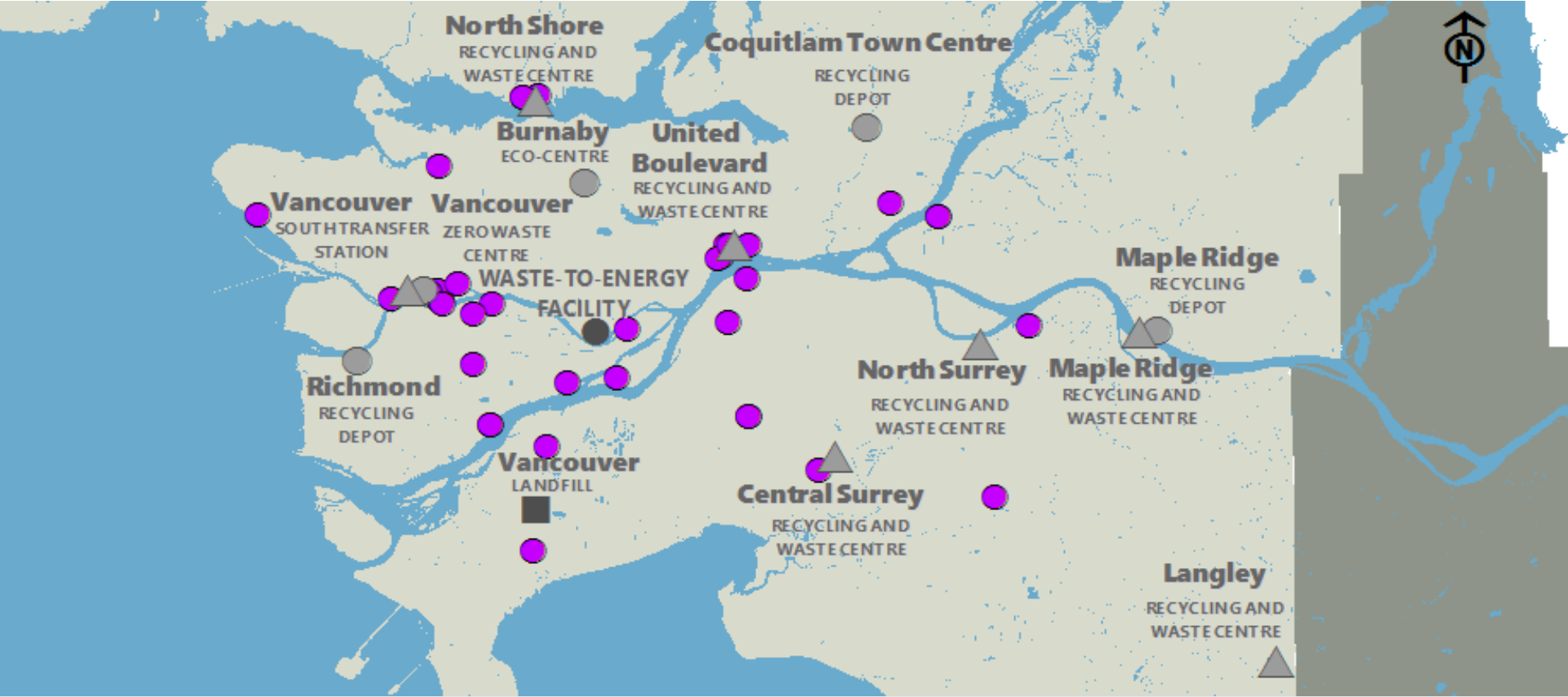
MATERIAL FLOW



Metro Vancouver Solid Waste Facilities



LICENSED SOLID WASTE FACILITIES



GUIDING POLICY & TARGETS

2011 Solid Waste Management Plan



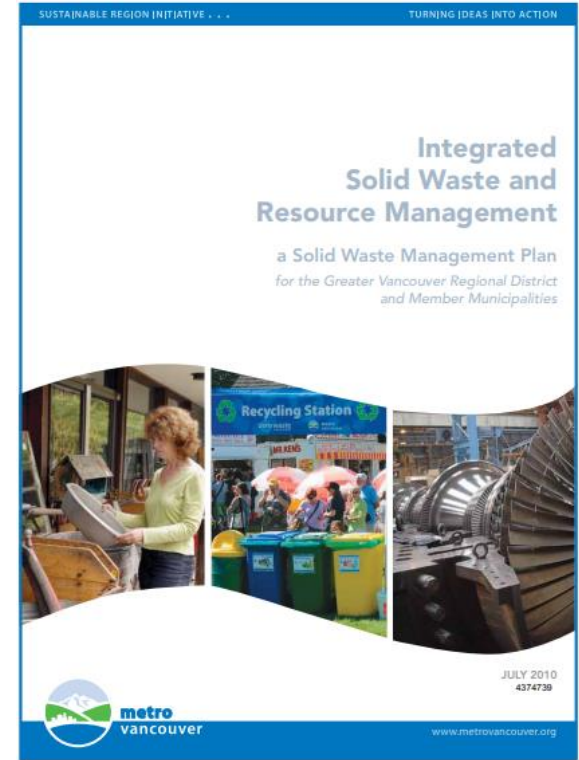
**10% Reduction Waste Generation
(Achieved 11%)**

Generation = Recycled + Disposed



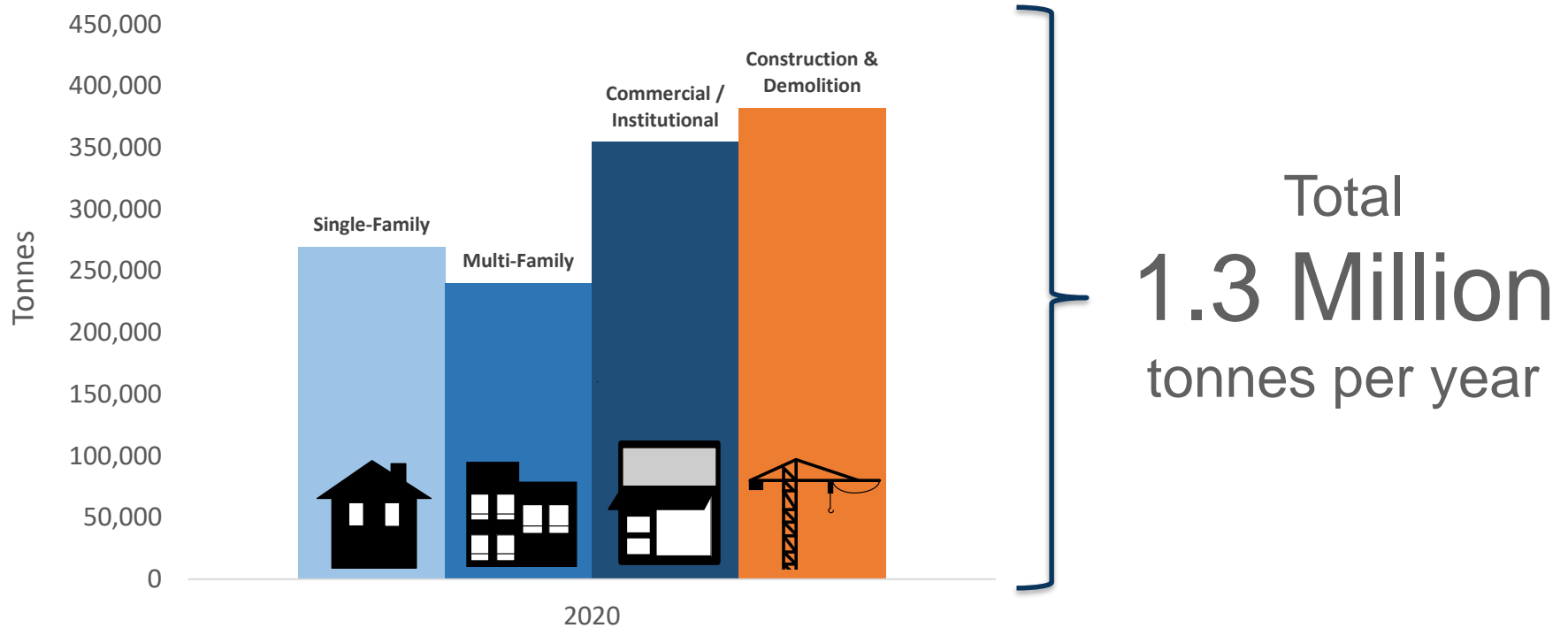
**80% Recycling Rate
(Achieved 64%)**

Recycling Rate = Recycled / Generated



REGIONAL DISPOSED WASTE BY SECTOR

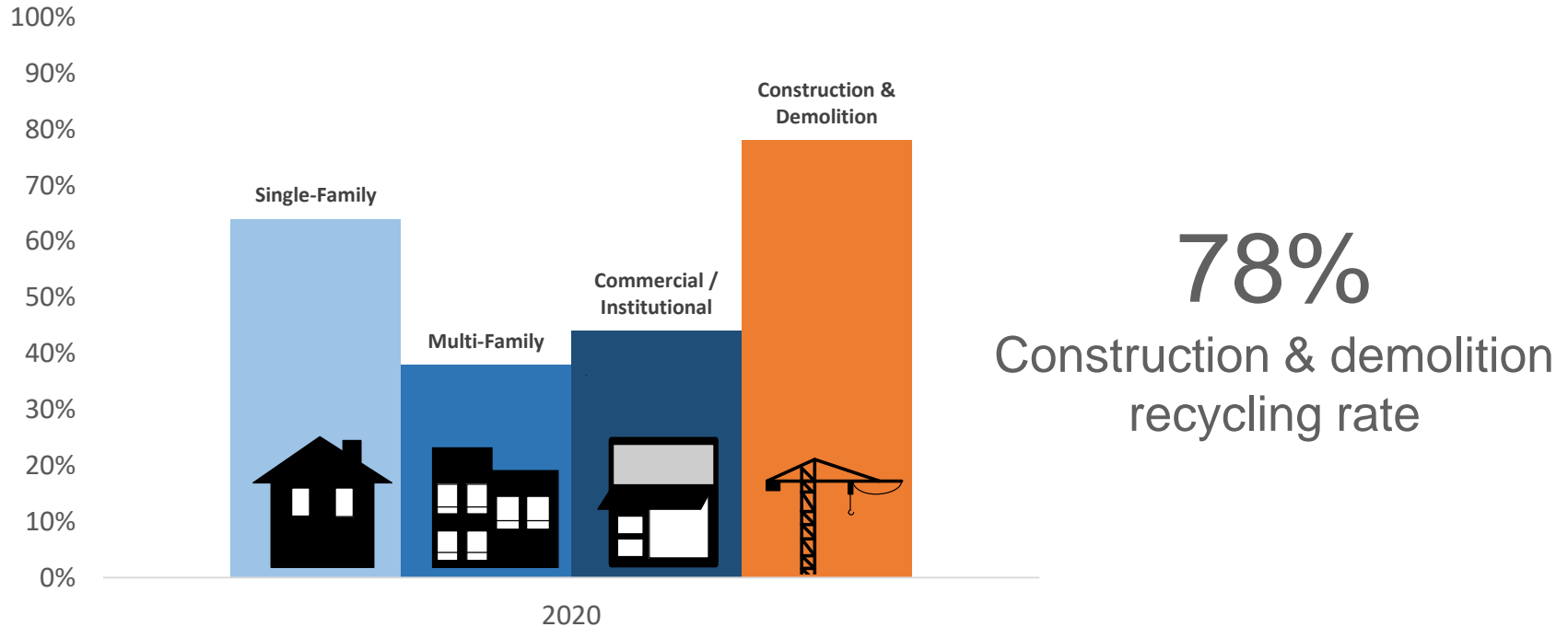
Shown in metric tonnes



Source: [Metro Vancouver, 2020 Solid Waste Management Annual Summary](#)

REGIONAL RECYCLING RATES BY SECTOR

Shown in percentages



Source: [Metro Vancouver, 2020 Solid Waste Management Annual Summary](#)



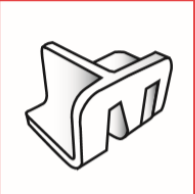
Continuous Improvement

DISPOSAL BAN PROGRAM

NO

By Metro Vancouver by-law, these materials do not go in the garbage bin.

Search "banned" at metrovancover.org



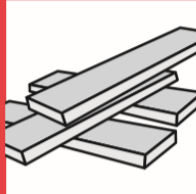
EXPANDED POLYSTYRENE PACKAGING



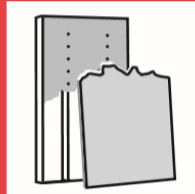
FOOD



YARD



UNTREATED WOOD



DRYWALL



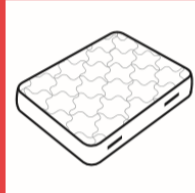
CONTAINERS



MIXED PAPER



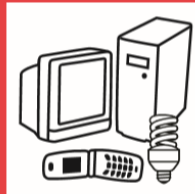
CARDBOARD



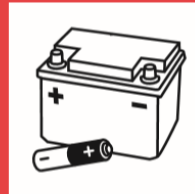
MATTRESSES



APPLIANCES



ELECTRONICS



BATTERIES



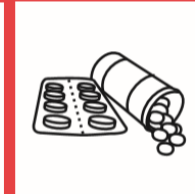
PAINT



OIL & FILTERS



TIRES



MEDICATIONS



HAZARDOUS

2021 SURCHARGED MATERIALS



DRYWALL
(4%)



CLEAN WOOD
(3%)



PAINT
(3%)



TIRES
(3%)



OTHER MATERIALS
(5%)



FOOD WASTE
(5%)



GREEN WASTE
(1%)



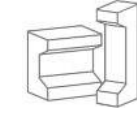
OIL
(1%)



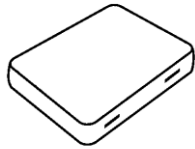
RECYCLABLE CONTAINERS
($<0.5\%$)



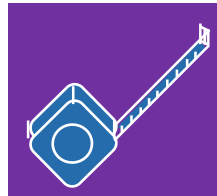
RECYCLABLE PAPER
($<0.5\%$)



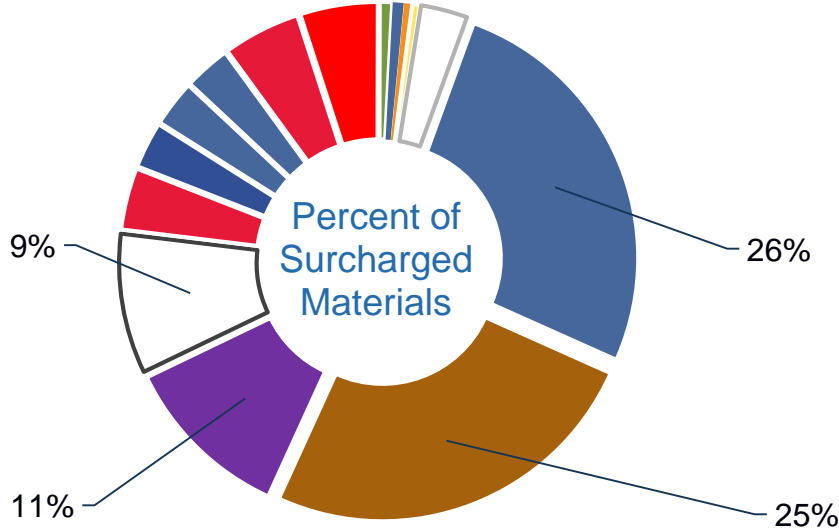
EPS PACKAGING
(3%)



MATTRESSES



LARGE OBJECTS

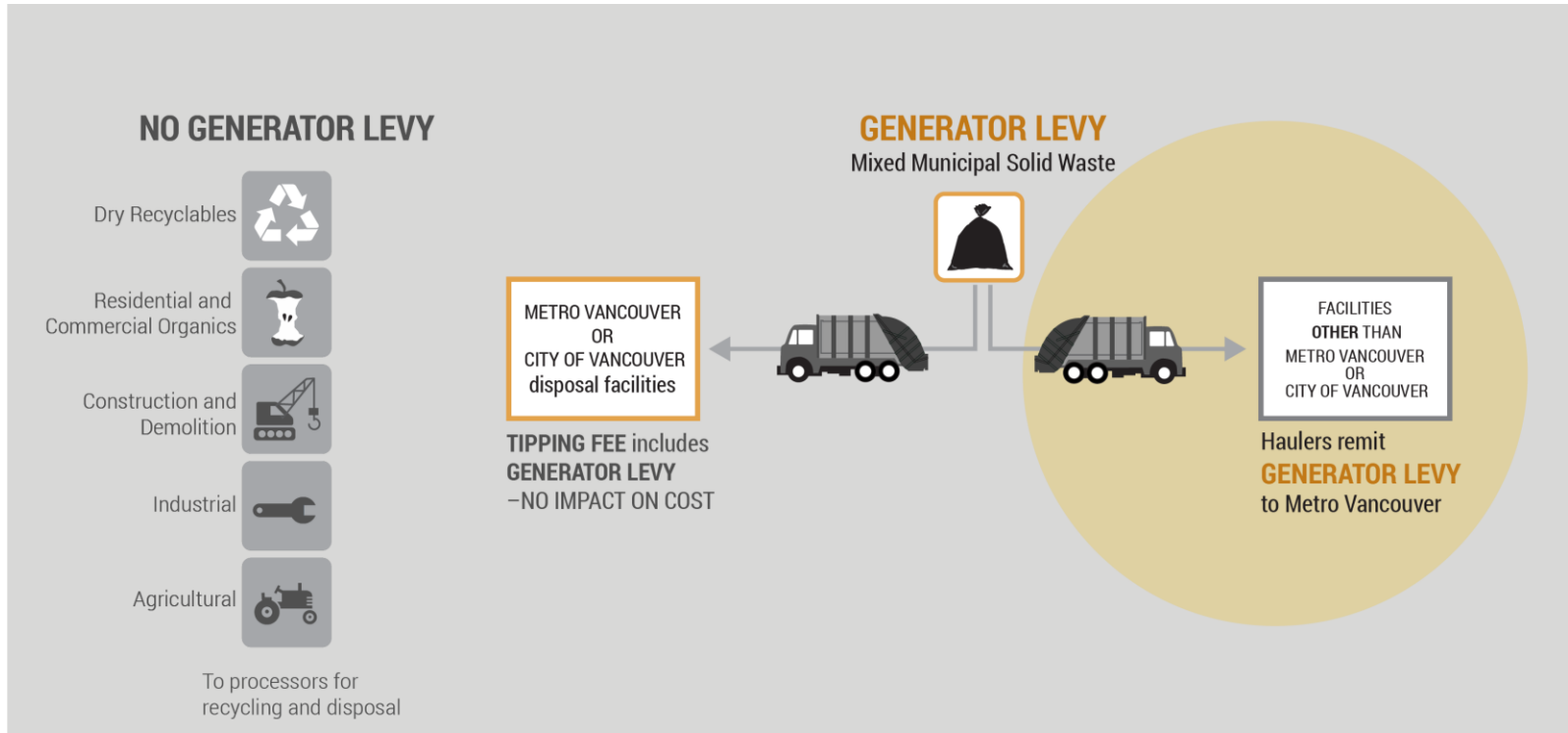


E - WASTE



CARDBOARD

GENERATOR LEVY



UNITED BOULEVARD AND CENTRAL SURREY RECYCLING AND WASTE CENTRES



United Boulevard Recycling and Waste Centre
995 United Boulevard



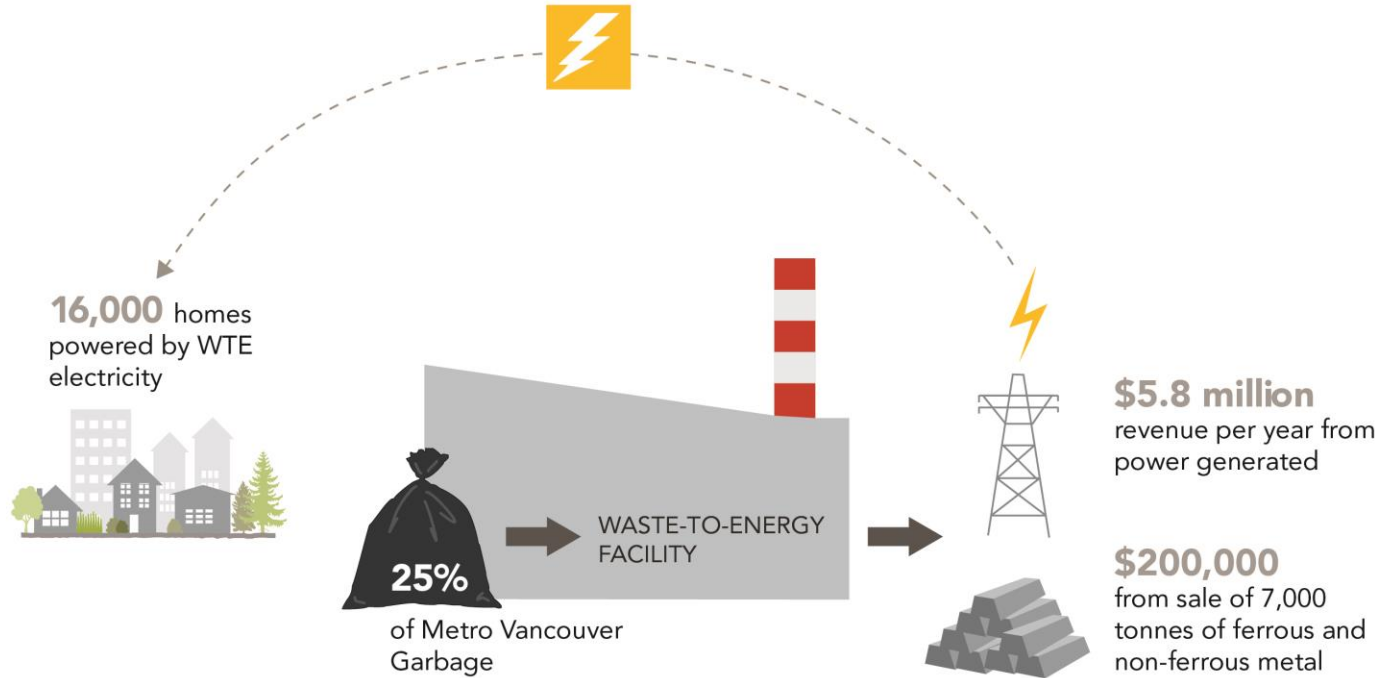
Central Surrey Recycling and Waste Centre
6711 – 154 Street

CENTRAL SURREY RECYCLING AND WASTE CENTRE

- Small vehicle facility with full suite of recycling services
- Increase recycling, reduce waste and illegal dumping
- Reduce traffic, GHG emissions and travel distances

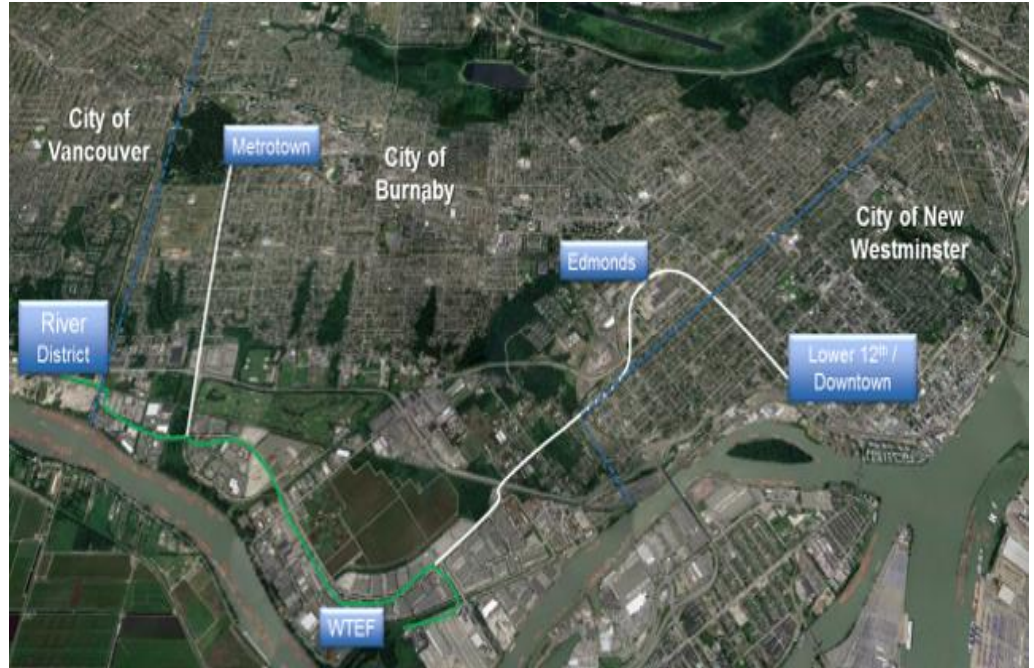


METRO VANCOUVER WASTE-TO-ENERGY FACILITY



WASTE-TO-ENERGY FACILITY DISTRICT ENERGY

- Heat and hot water for up to 30,000 homes
- Up to 45,000 tonnes per year of GHG emission reductions
- Energy sales pay for project
- Agreement with River District Energy in place



DISCUSSION

What other information about the regional recycling and waste system would you like to know to be able to contribute on the committee?



Thank you

metrovancouver



Waste Reduction and Recycling Data

OVERVIEW

Terry Fulton, P.Eng.

Senior Project Engineer, Solid Waste Services

Solid Waste Management Plan Public/Technical Advisory Committee September 21, 2022
54717424

metrovancouver

OUTLINE

- What data do we collect and why?
- How do we collect it?
- What does it tell us?
- Where can I find it?

Part 1: What do we collect and why?

North Shore Recycling and Waste Centre




WHAT DO WE COLLECT?

- Types and quantities of waste generated
 - Generation = Disposal + Recycling
 - Composition of material disposed
 - Tonnage of commodities recycled
- Source of material
 - Residential, Commercial, Small Loads

WHY DO WE COLLECT IT?

- Track progress of various initiatives
 - Solid waste management plan goals
 - Comparison to other jurisdictions and best practices
 - Overall program effectiveness
- Identify targets for future programs and policies
 - Sectors
 - Materials



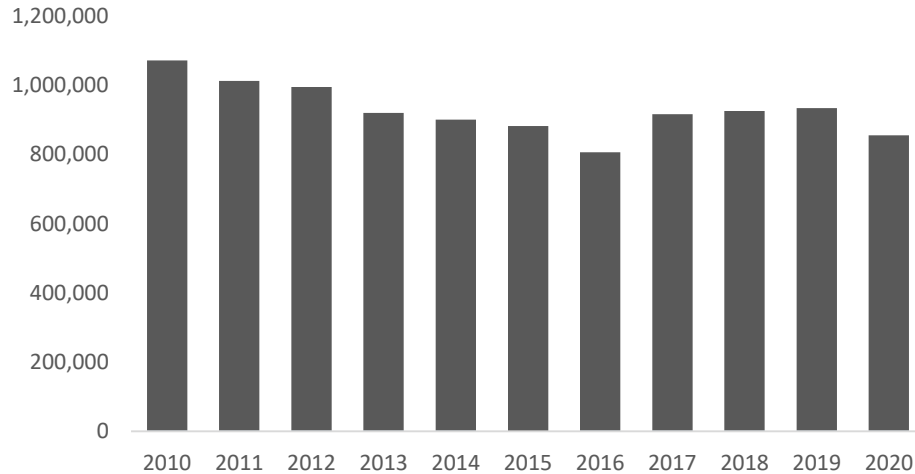
Part 2: How do we collect it?

North Shore Recycling and Waste Centre

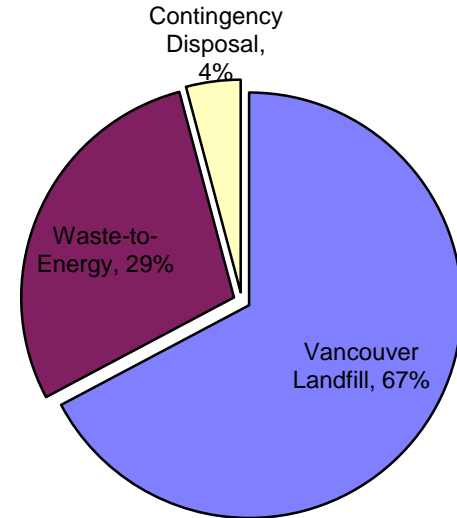
DISPOSAL QUANTITIES

Source: Scale Data

Municipal Solid Waste Disposed

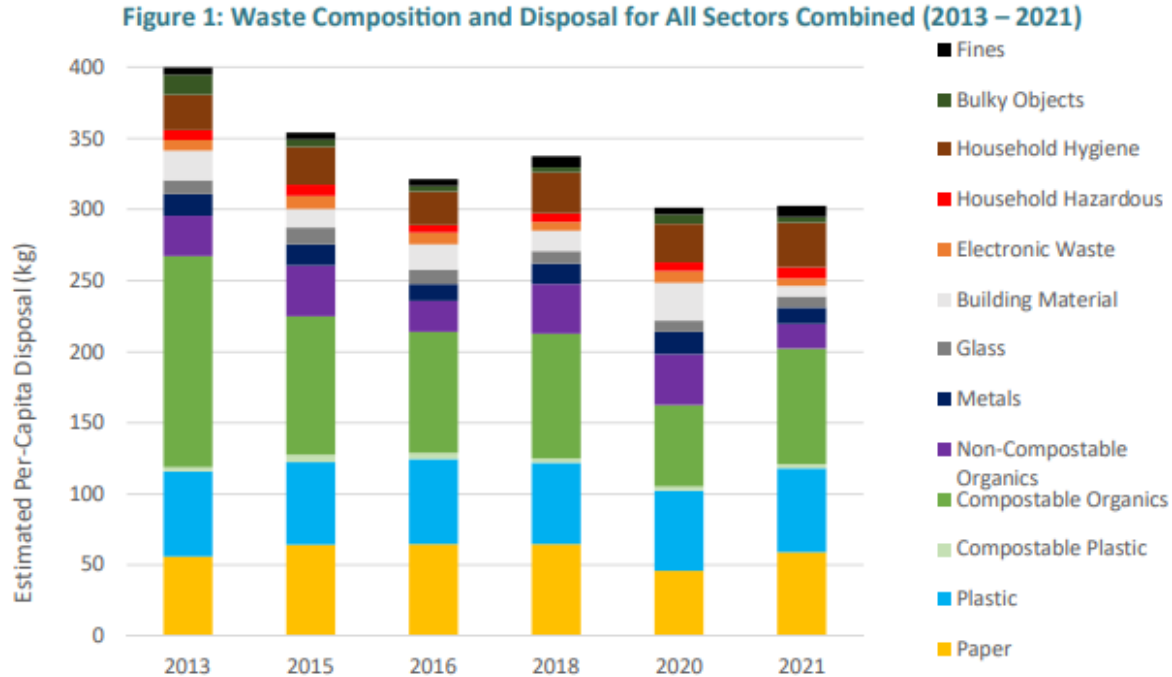


Proportion of Waste Disposed in the Regional Solid Waste Management System, 2020



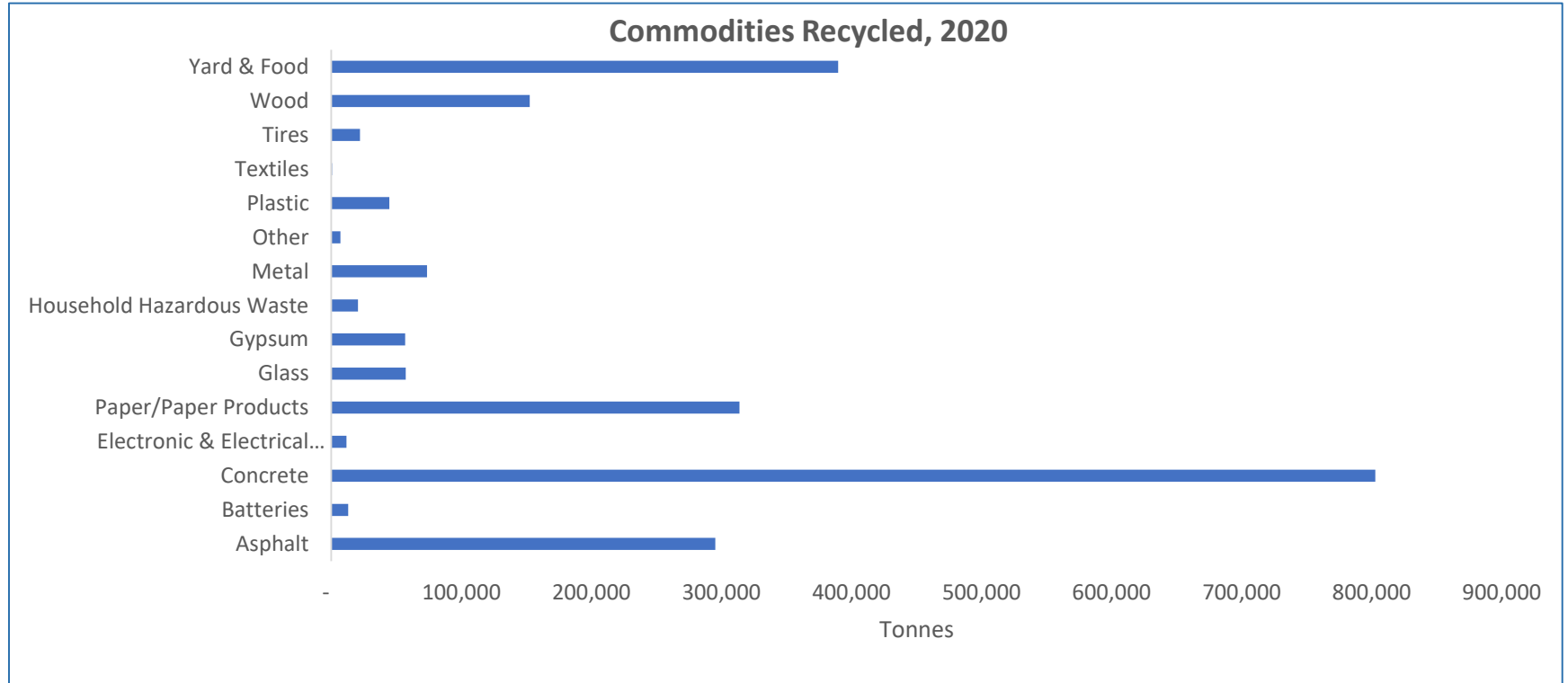
TYPES OF MATERIAL DISPOSED

Source: Waste Composition Studies



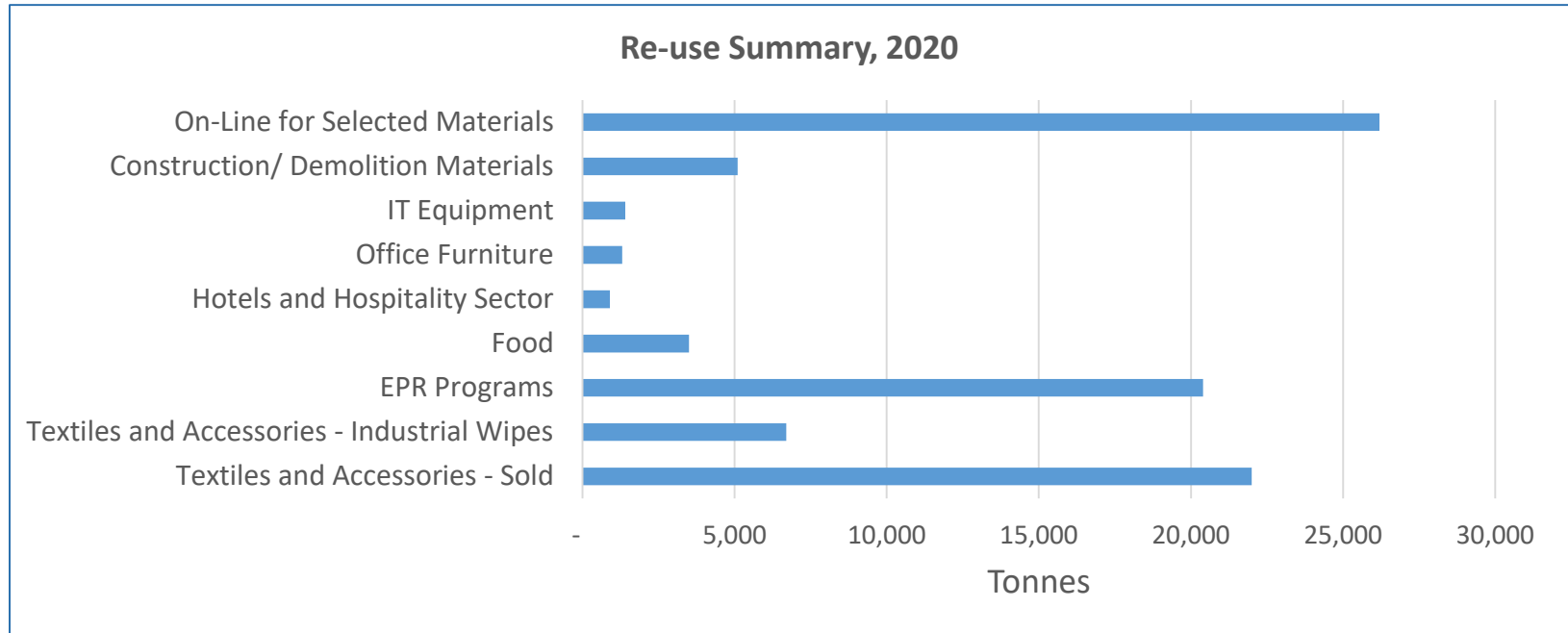
TYPES OF MATERIAL RECYCLED

Sources: Licensed and Unlicensed Private Facilities, EPR Reports



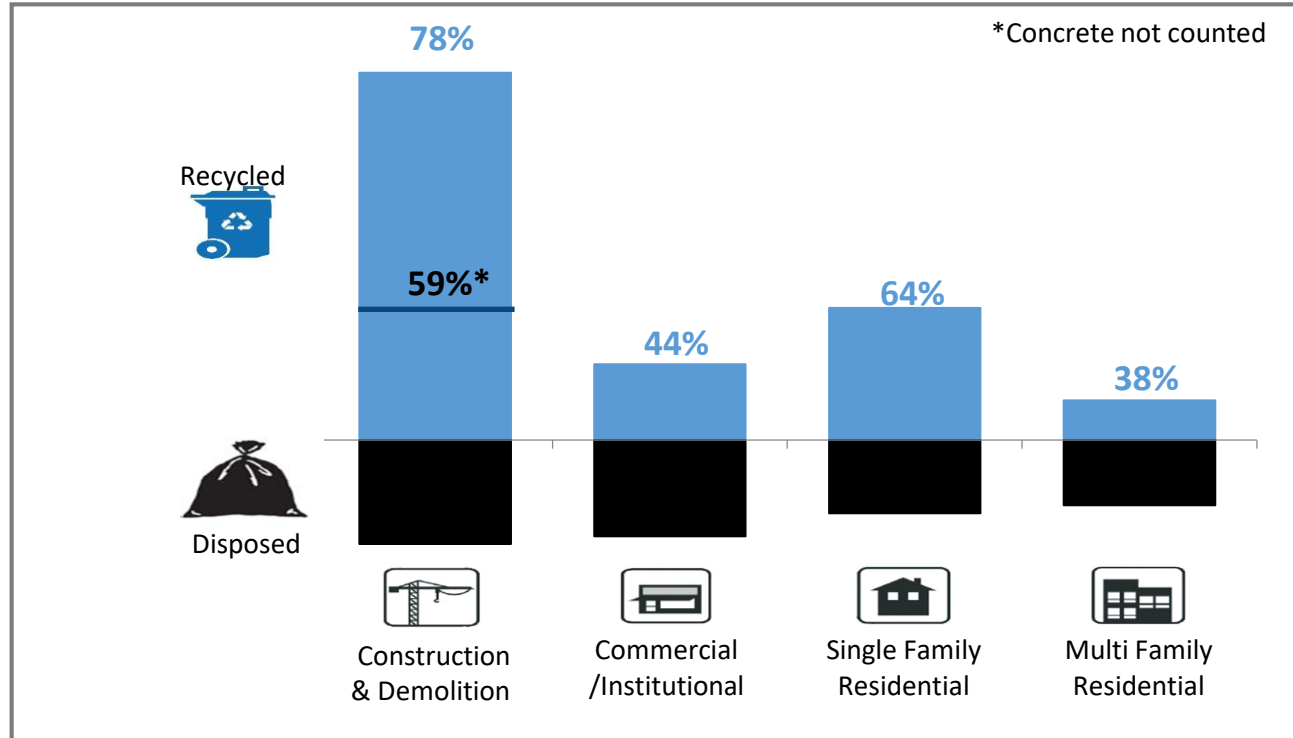
RE-USE

Source: Re-use and Repair Organizations, Scale Data



SECTOR-SPECIFIC DATA


Source: Municipal Surveys, Scale Data, Waste Composition Studies



OTHER DATA

Sources: Scale Data, Disposal Ban Inspectors, Municipalities, Customers, Residents Etc.

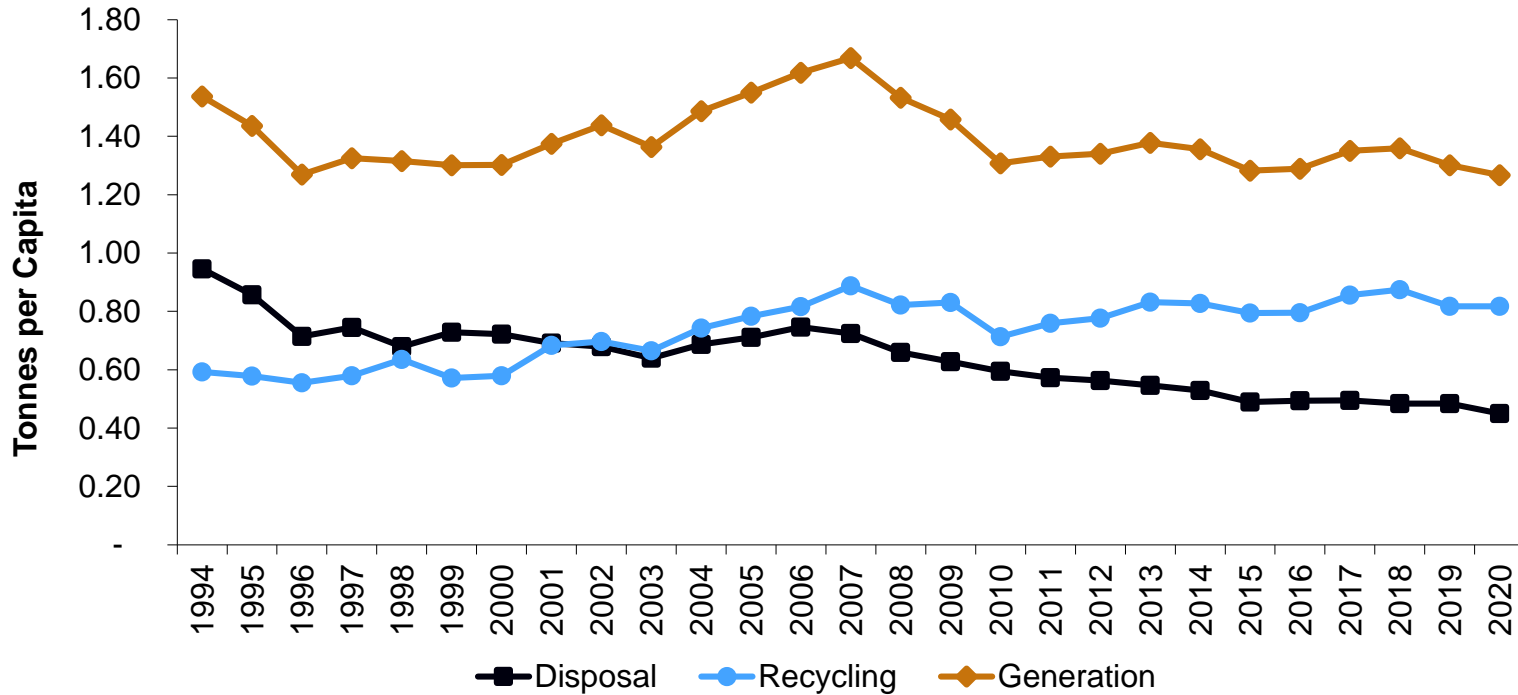
- Banned Material Surcharges
- Illegal Dumping
- Customer Service
- Campaign Analytics
- Etc...

A large, chaotic pile of waste is shown, including cardboard boxes, plastic bags, and pieces of furniture. The waste is piled high and appears to be in a recycling or waste management facility. The background is a dark blue textured overlay.

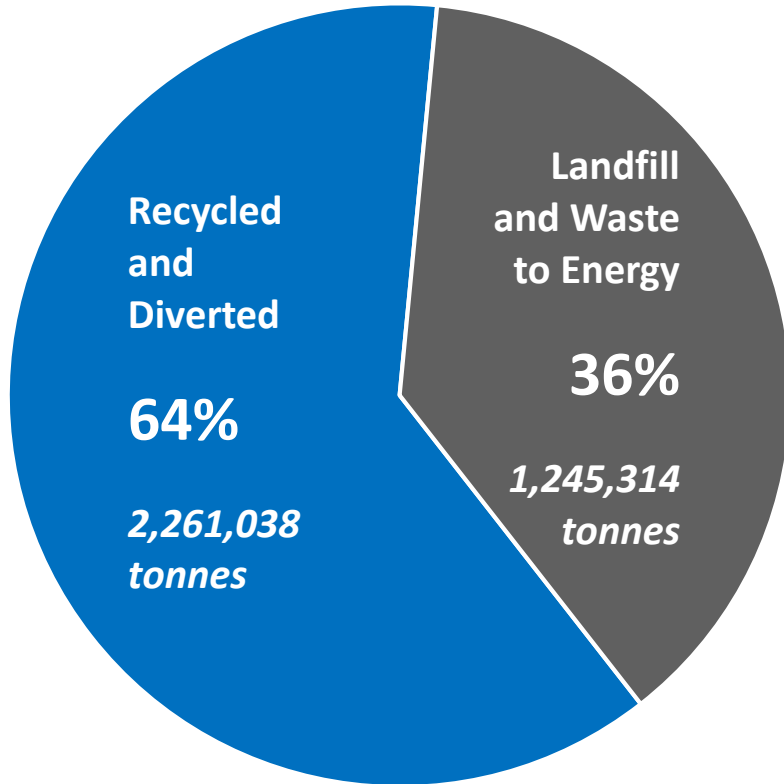
Part 3: What does it tell us?

North Shore Recycling and Waste Centre

Generation & Recycling Over Time



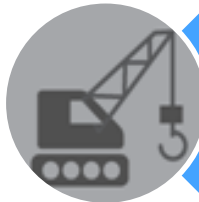
2020 Recycling Rates



Residential
Single-family 64%
Multi-family 38%



Commercial/institutional 44%



Construction/Demolition 78%

2011 Solid Waste Management Plan Targets



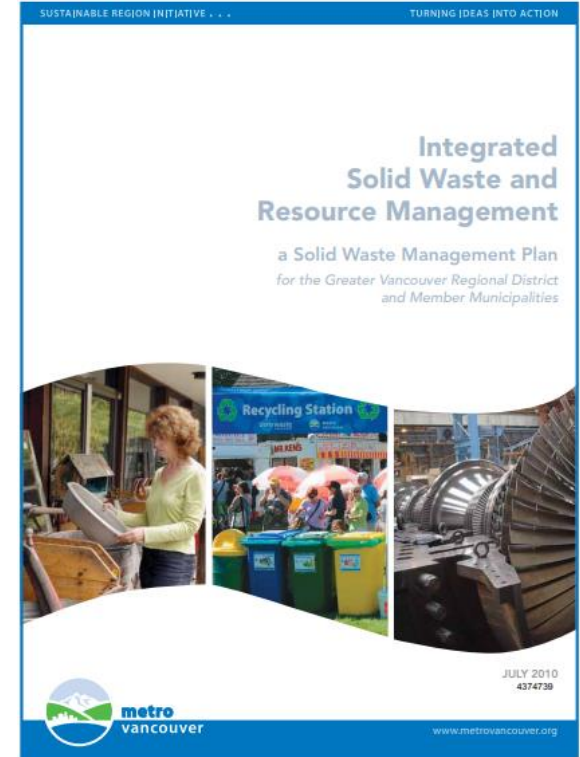
**10% Reduction Waste Generation
(Achieved 11%)**

Generation = Recycled + Disposed



**80% Recycling Rate
(Achieved 64%)**

Recycling Rate = Recycled / Generated



Part 4: Where can I find it?

North Shore Recycling and Waste Centre



HOW DO WE SHARE DATA?

Two main sources

Waste Composition Program



Annual Recycling and Solid Waste Management Report



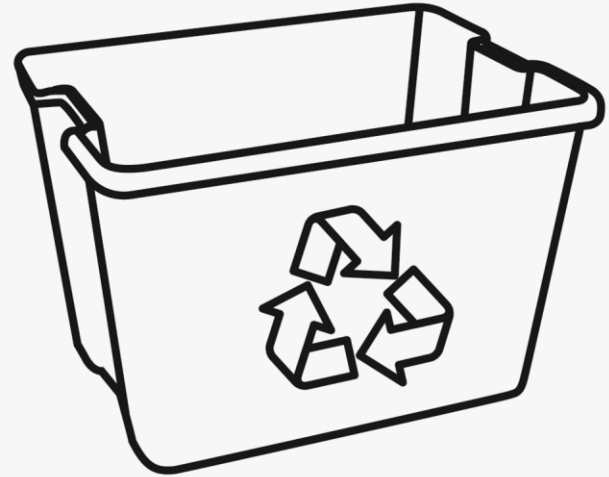
[Reports & Resources \(metrovancouver.org\)](https://www.metrovancouver.org)



North Shore Recycling and Waste Centre

Thank you

metrovancover



Recycling Bin

Zero Waste and Circular Economy

METRO VANCOUVER

Chris Underwood, P.Eng

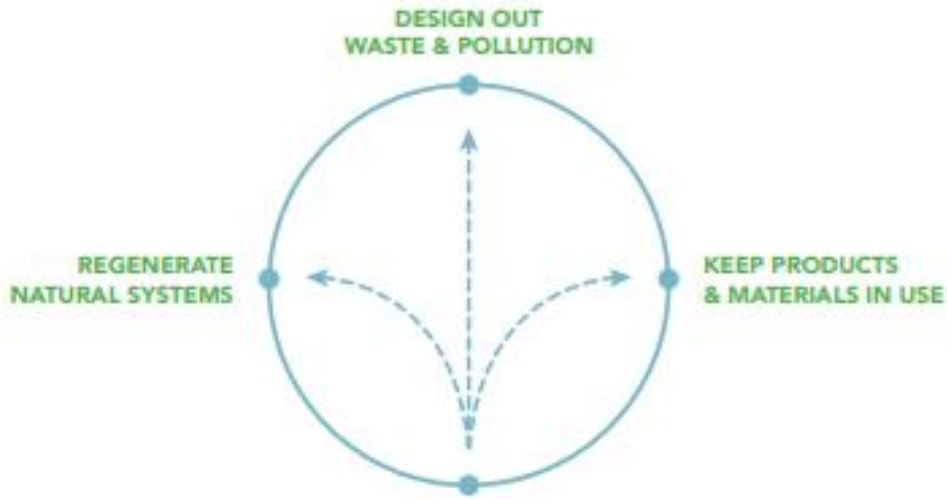
Division Manager, Solid Waste Planning

Solid Waste Management Plan Public/Technical Advisory Committee September 21, 2022

54720045

metrovancover

ZERO WASTE & CIRCULAR ECONOMY

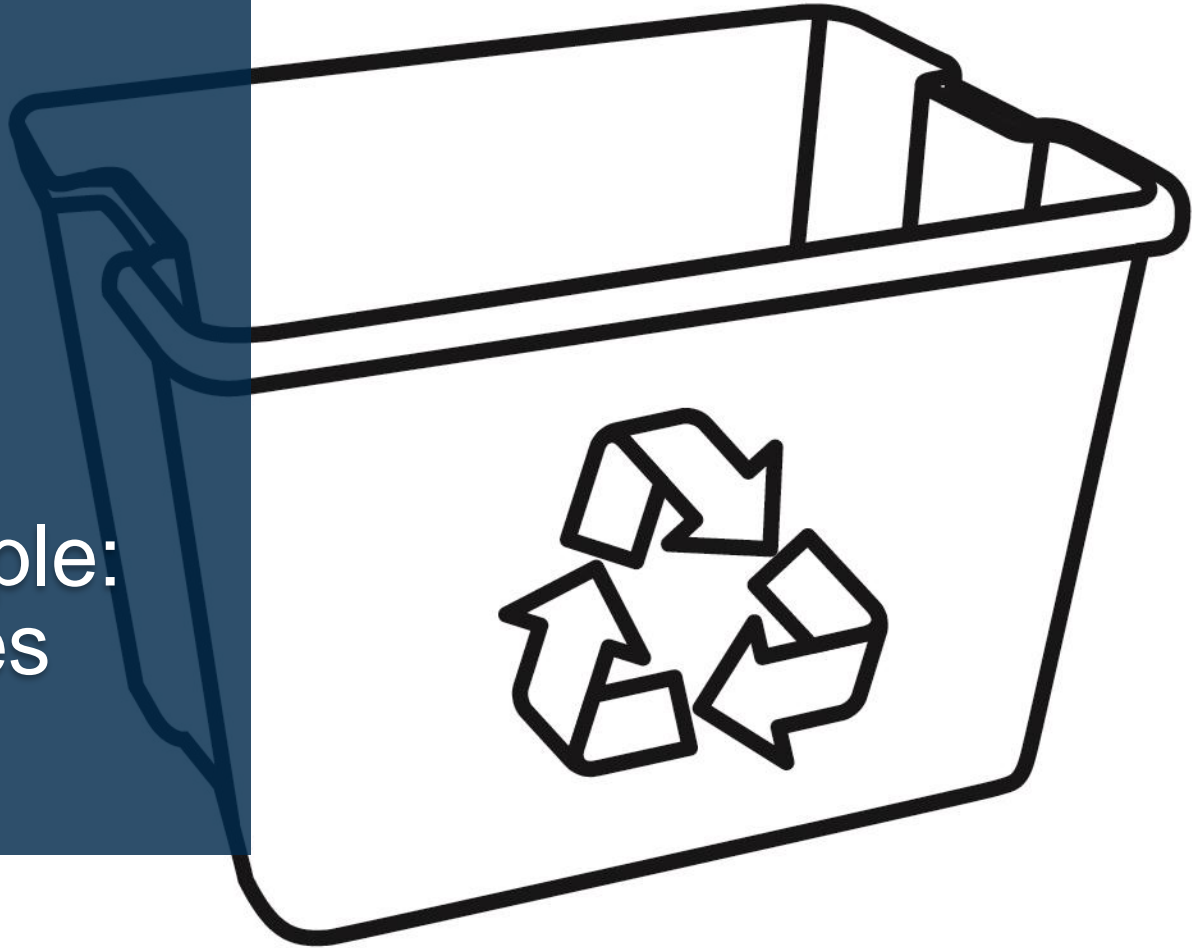


THE 3 PRINCIPLES OF THE CIRCULAR ECONOMY

Supporting tools:

- Collaboration
- Research
- Policy
- Programs
- Infrastructure
- Public Education

Example:
Textiles

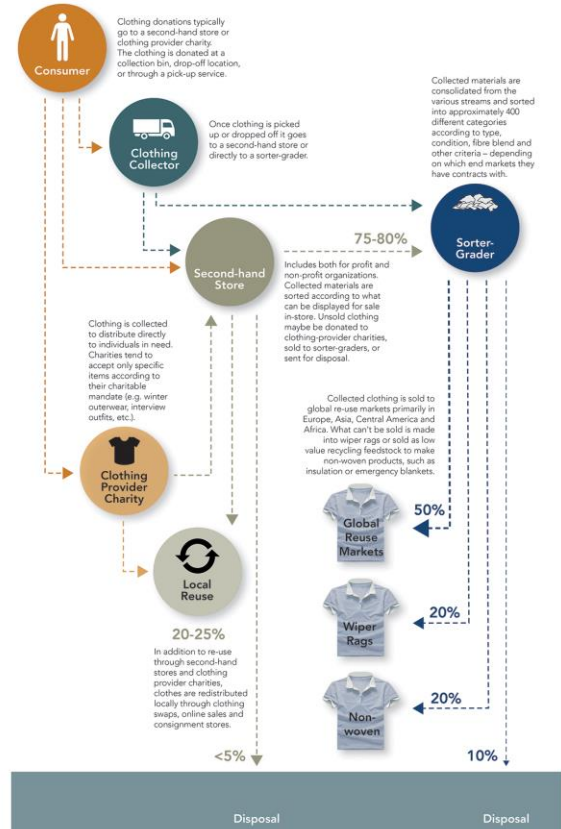


CAMPAIGNS

In the Metro Vancouver region

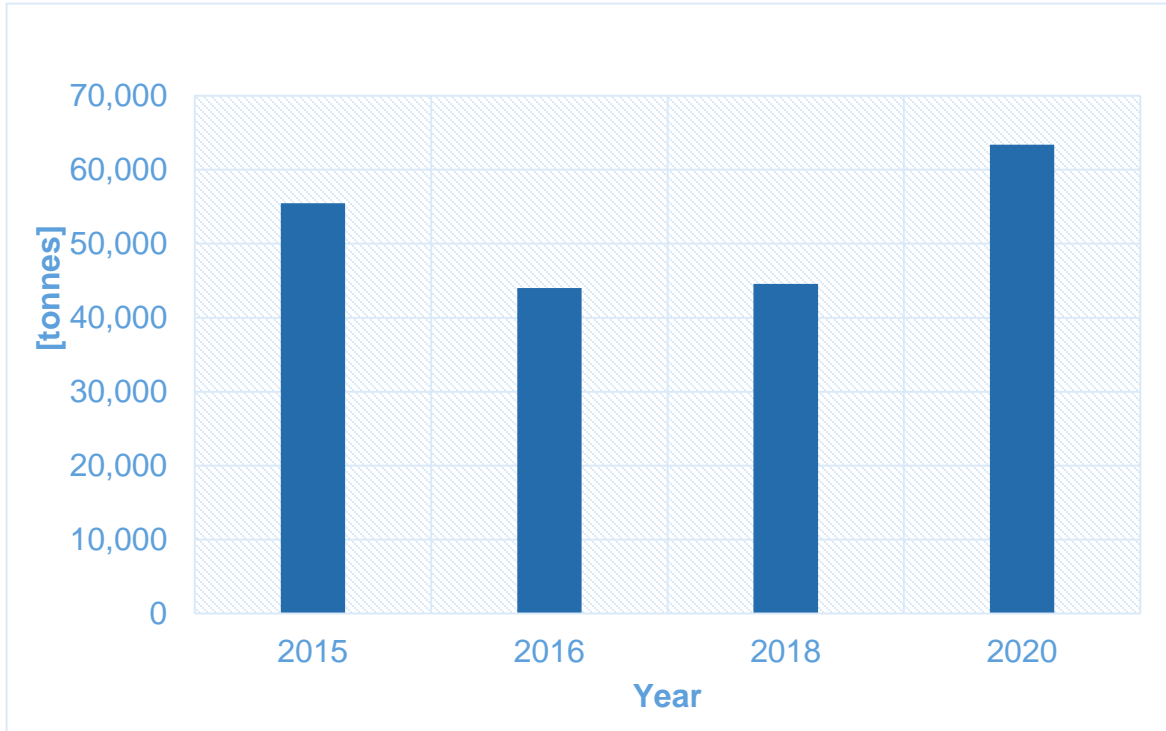


THE LIFE CYCLE OF UNWANTED CLOTHING WHAT HAPPENS TO YOUR UNWANTED CLOTHING?



TEXTILES WASTE

Disposal Data



**WE EACH TRASH
44 T-SHIRTS* PER YEAR.**



* According to Metro Vancouver's 2016 waste composition study, on average we each discard 17 pounds of clothing per year – the equivalent weight of 44 t-shirts.

10
CASUAL
FRIDAYS

7
DATES

2
LUMBERJACK
COSTUMES

1
THOUGHTFUL
OWNER



THINK THRICE ABOUT YOUR CLOTHES
Reduce, Repair, Reuse.

46
CONCERTS

10
TOURS

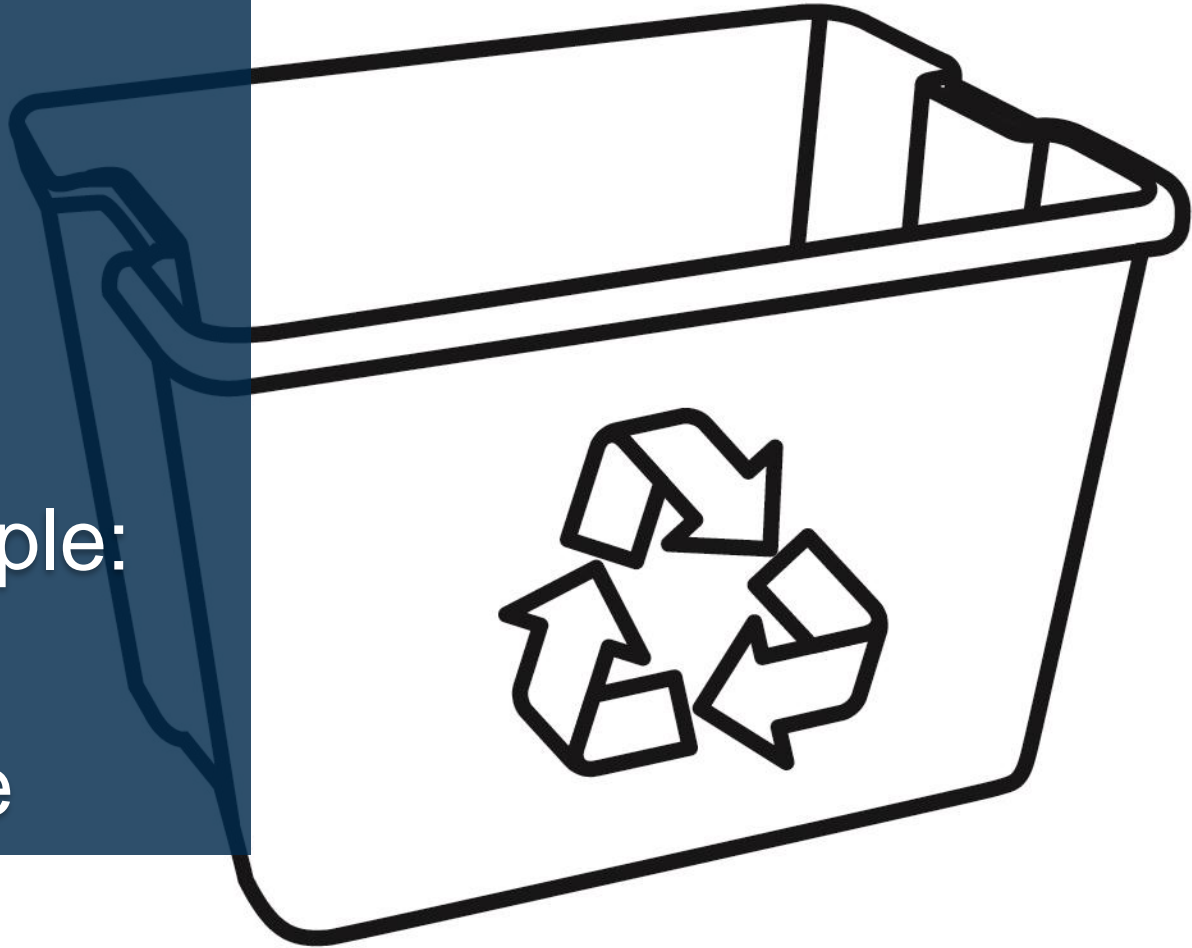
1
FIRST
DATES

3
DEDICATED
OWNERS

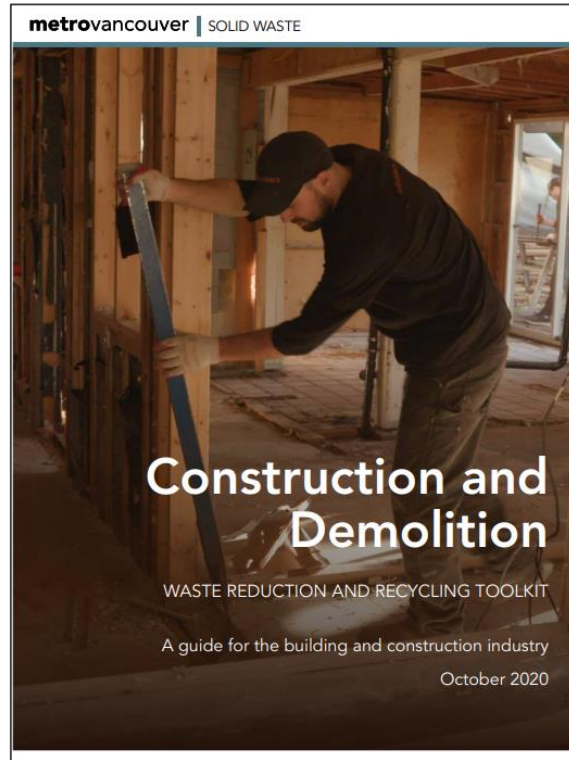


THINK THRICE ABOUT YOUR CLOTHES
Reduce, Repair, Reuse.

Example:
C&D
Waste



C&D TOOLKIT



C&D WASTE REDUCTION AND RECYCLING TOOLKIT

Alternatives to Demolition

- Adaptive Reuse
- House Moving
- Deconstruction
- Salvage and Reuse



CALCULATOR

Demolition Waste Generation Rates Calculator



[Home](#) > [Services](#) > [Solid Waste](#) > [Waste to Energy & Disposal](#) > [Construction & Demolition Waste](#) > Demolition Waste Generation Rates Calculator

All details and material estimates produced by this calculator are intended for informational purposes only. Additional information on specific municipalities' bylaws, procedures and requirements is available through individual municipal websites.

Use this calculator to estimate:

- The weight of each type of waste material generated at your residential demolition site.
- The minimum amount of demolition waste (by weight) that must be recycled or reused to fulfill your municipality's recycling requirements.

House Floor Area:

Enter a number, then select the unit in sqft or sqm.

sq ft

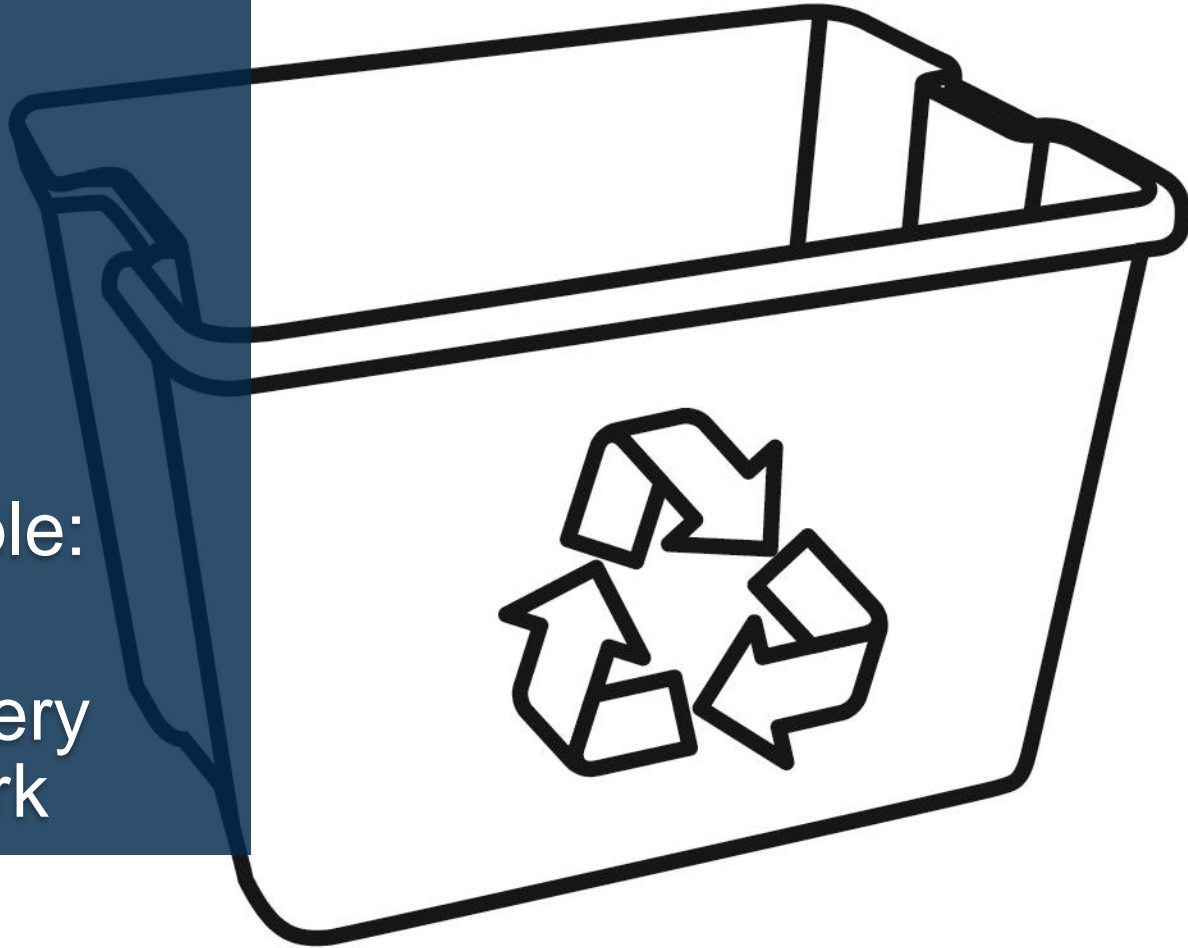
Which unit do you want to display the results?

Required recycling rate:

Select a preset value (if it exists). The minimum recycling rate depends on the requirements set by each municipality.



Example:
Food
Recovery
Network



REGIONAL FOOD RECOVERY NETWORK

Purpose

- Rescue and redistribute surplus food to highest end-use
- Create secondary markets
- Reduce waste



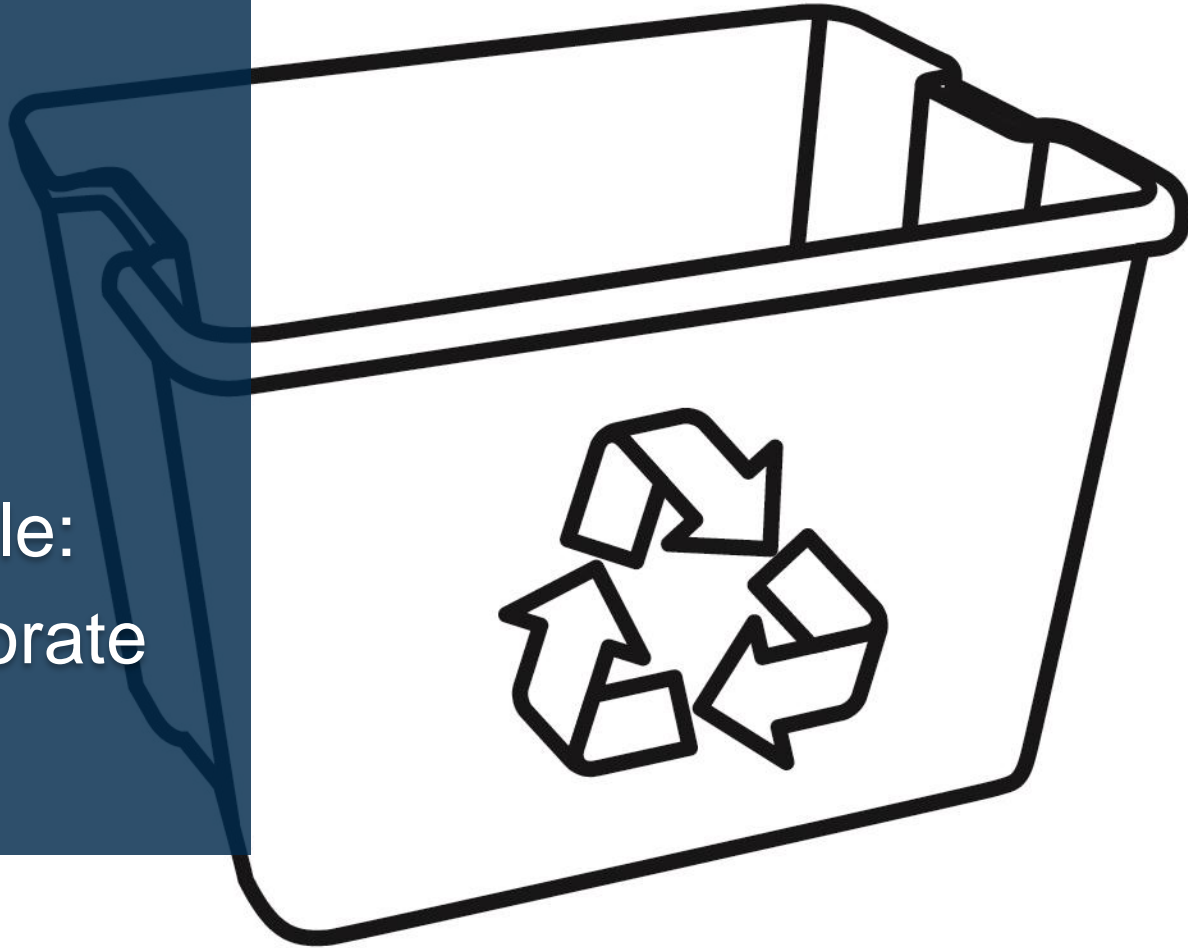
ANNUAL REPORTING

Metrics

- Participating organizations
- Total food diverted by weight
- Food diverted by destination
- Total cost savings
- Total CO₂ emissions saved
- Jobs created



Example:
Collaborate




COLLABORATION

- **metrovancover** recycles helps residents find recycling options
- Data powered by RCBC

metrovancover recycles [about us](#)

What are you recycling today?


Where are you recycling?



Metro Vancouver Recycles is a database and search tool for residents and businesses to find out where to recycle or donate thousands of different materials across the region. The easy-to-use tool allows searches by material and location, and displays a map of recycling drop-off locations and details such as hours of operation and contact information. Materials listed include batteries, electronics, packaging, clothing, and more.

Report an issue
Email: hotline@rcbc.ca
Phone: 604-RECYCLE

Learn more about waste management
Subscribe: Solid Waste Mailing List
Phone: 604-432-6200

Data powered by 

COLLABORATION

Reuse Day at the North Shore Recycling and Waste Centre

- June 2019 Pilot weekend diverted 1565 kg of reusable materials
- Restarting in summer/fall 2022



NATIONAL ZERO WASTE COUNCIL

Focus Areas:

- Waste prevention
- Circular Economy
- Construction and Demolition
- Food
- Plastics
- Product Design and Packaging





Thank You

metrovancouver



Solid Waste Management Plan Planning and Engagement Update

Sarah Evanetz, MPA, OLY

Division Manager, Strategy and Stakeholder Relations, Solid Waste Services

Sandy Young, MEB

Senior Engagement Specialist, Strategy and Stakeholder Relations,
Solid Waste Services

Solid Waste Management Plan Public/Technical Advisory Committee September 21, 2022

54746544

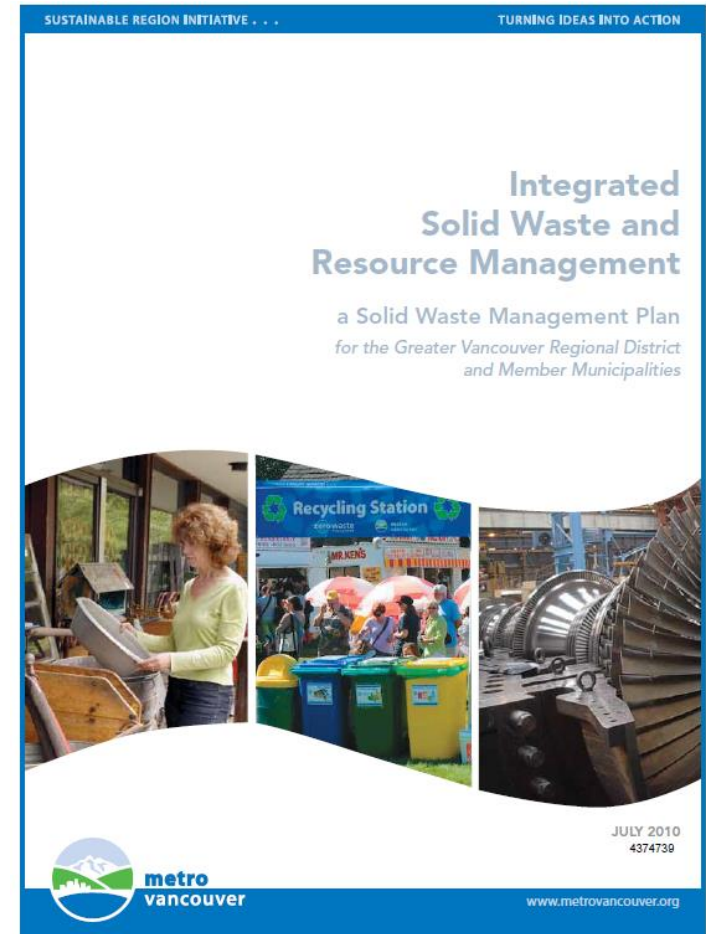
metrovancouver

MANAGEMENT PLANS



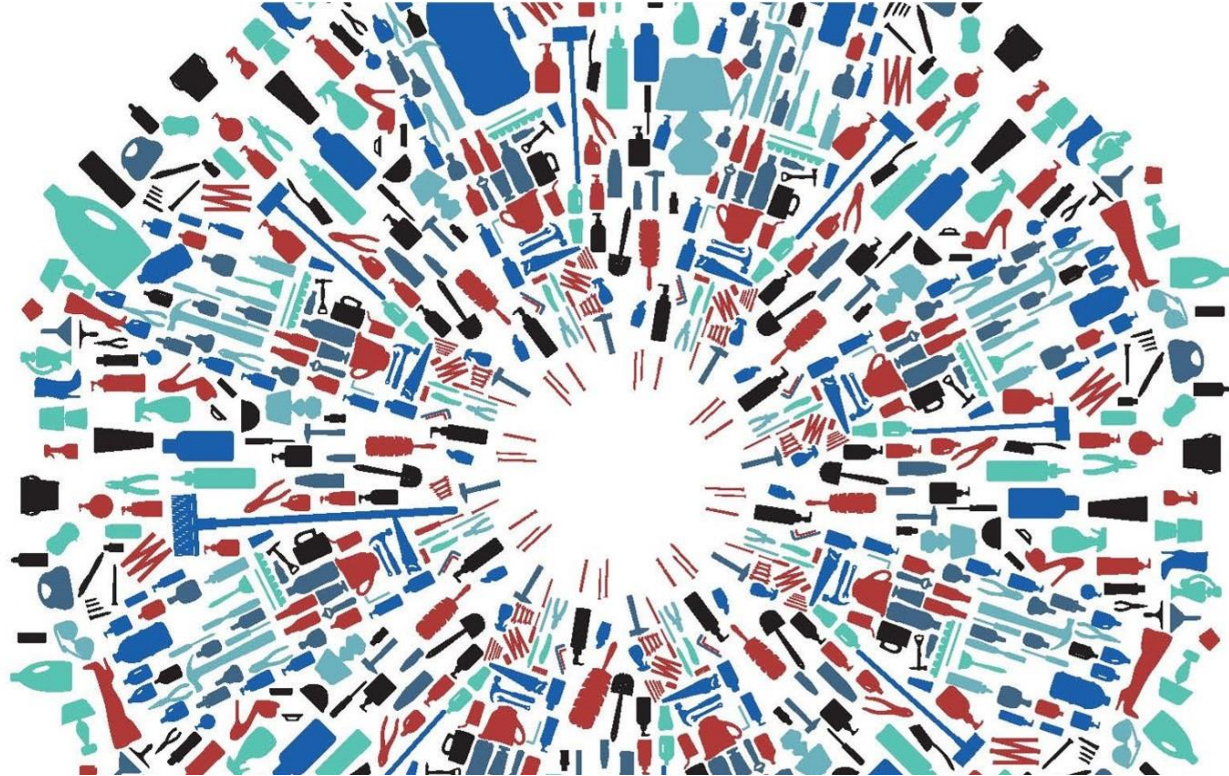
EXISTING PLAN

- Approved by Province in 2011
- Key goals:
 - Reduction
 - Reuse
 - Recycling
 - Material and energy recovery
 - Disposal



WHY UPDATE THE PLAN

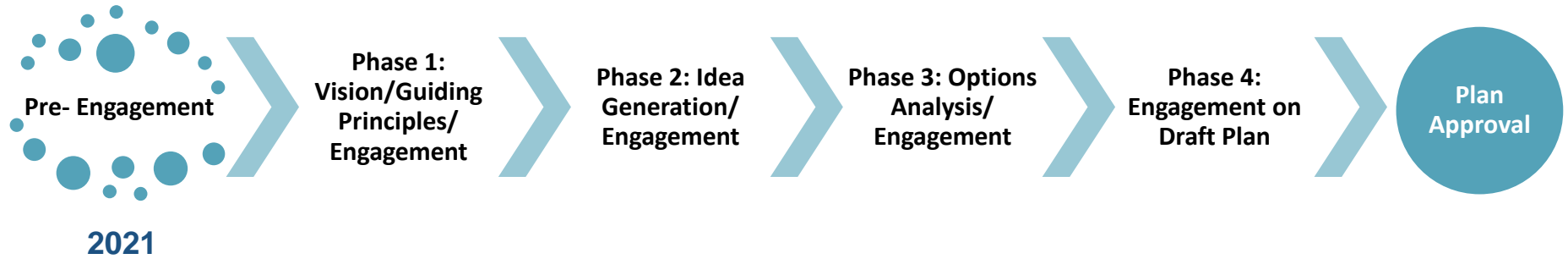
- Accelerate waste reduction and diversion
- Promote circular economy
- Reduce GHGs
- Align with other initiatives



KEY MILESTONES TO DATE

- 
- 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
 - June 2022 – Public/Technical Advisory Committee formed
 - 2023 – Phase 1 Vision/Guiding Principles engagement

PLAN DEVELOPMENT AND ENGAGEMENT PHASES



BACKGROUND: PROVINCIAL GUIDELINES

Step 1: Initiate the Planning Process

- Initiate plan update – Nov 2019
- Establish teams and committees
- Design engagement process
- Develop budget

Step 3: Evaluate Options

- Develop potential strategies
- Assess financial and administrative implications
- Engage audiences

Step 2: Set the Plan Direction

- Identify principles, goal and targets
- Prepare background information
- Assess current system and consider trends
- Engage audiences

Step 4: Prepare and Adopt the Plan

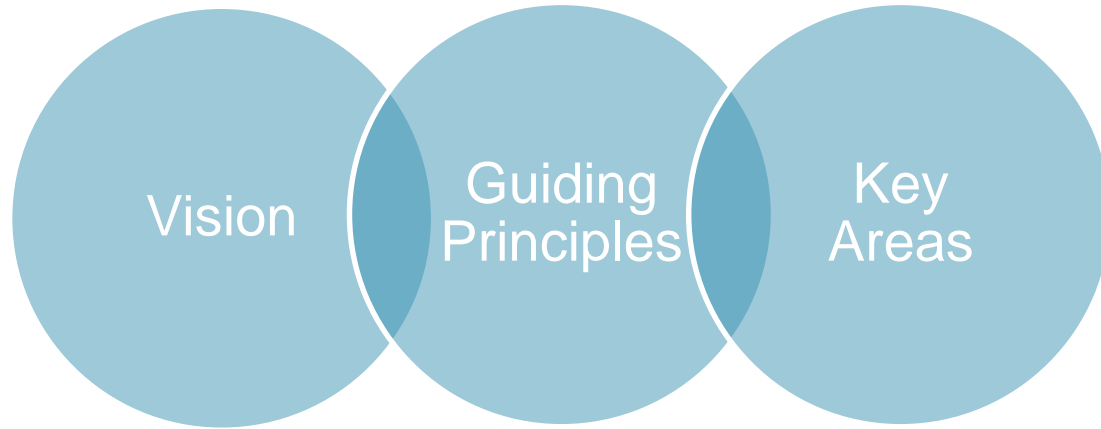
- Prepare draft plan
- Engage audiences
- Ministry review and approval
- Final adoption

PLAN APPROACH

- Build from existing plan
- Align with provincial guidelines
- Follow Metro Vancouver management planning framework
- Incorporate global best practices



PHASE 1 VISION/GUIDING PRINCIPLES DEVELOPMENT



Phase 1 Inputs

- Engagement input/feedback
- Current plan review and Metro Vancouver guiding documents
- Provincial guidelines
- Solid waste management planning literature review

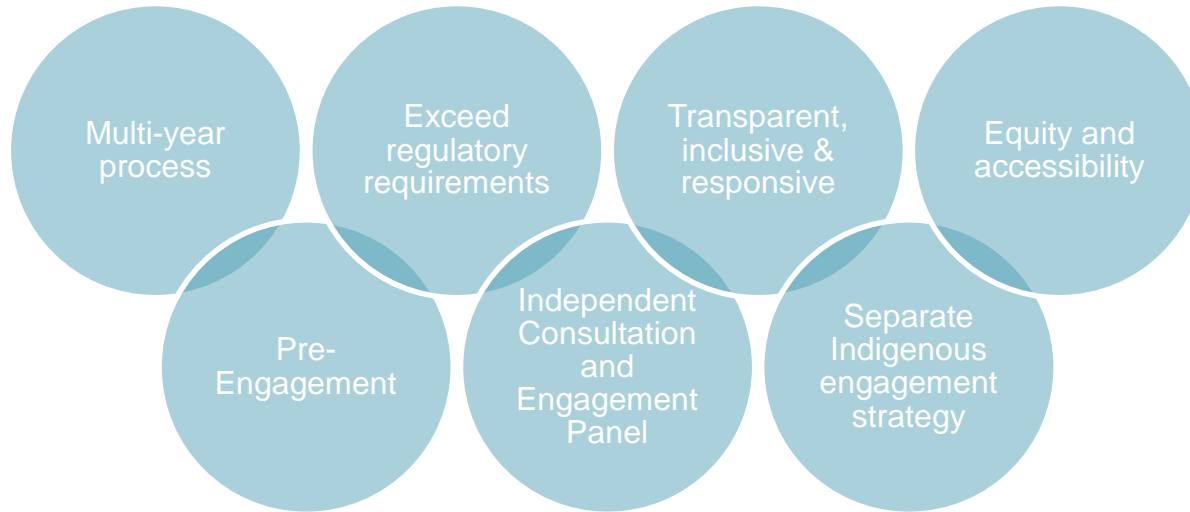
DISCUSSION

What jurisdictions or organizations should be looked to as part of the solid waste management planning literature review?

Phase 1 Vision/Guiding Principles Engagement

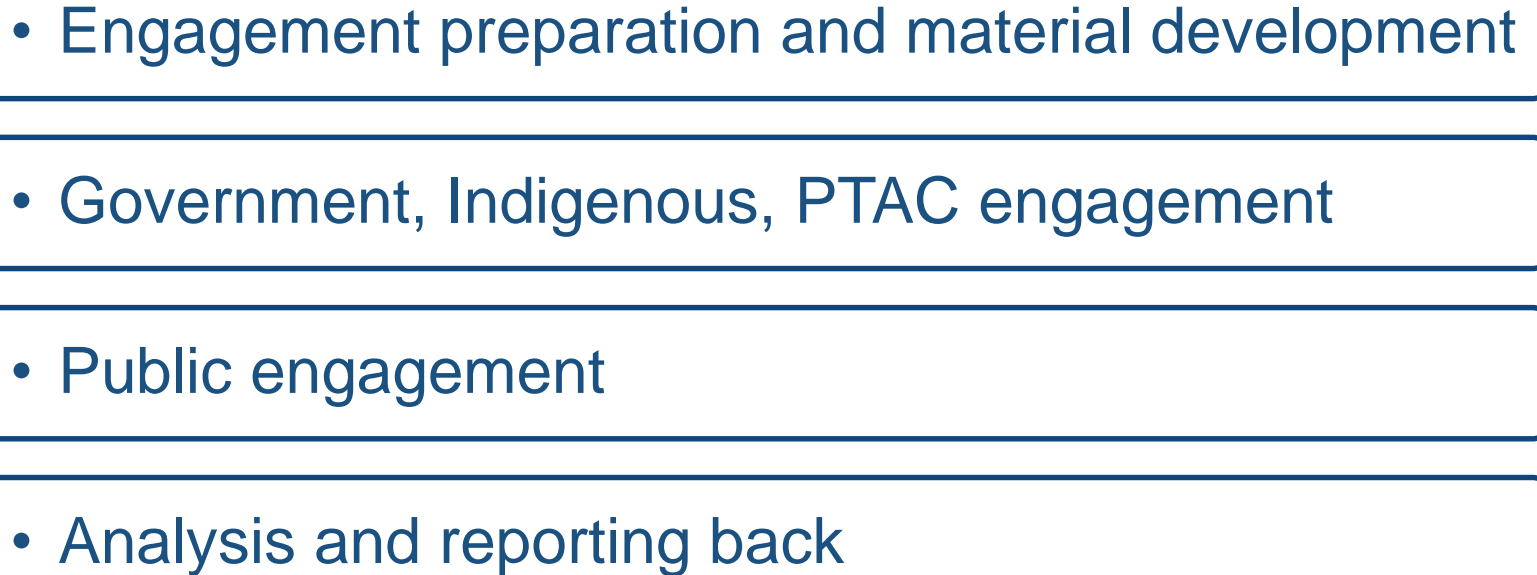


PUBLIC ENGAGEMENT PROGRAM



PHASE 1 VISION/GUIDING PRINCIPLES

Engagement Steps

- 
- Engagement preparation and material development
 - Government, Indigenous, PTAC engagement
 - Public engagement
 - Analysis and reporting back

PHASE 1 VISION/GUIDING PRINCIPLES

Engagement Steps



- Engagement preparation and material development*



- Government, Indigenous, PTAC engagement*



- Public engagement



- Analysis and reporting back*

NEXT PHASE: VISION/GUIDING PRINCIPLES ENGAGEMENT

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



DISCUSSION

How would you like to participate in Phase 1 engagement on the guiding principles and vision?



Thank you

metrovancouver