

## What actions can build on our success to rethink and prevent waste in the first place?



How can waste reduction fight climate change? Everyday items like coffee cups require energy, water, and materials to make. By switching to reusable items and repairing instead of replacing, we can lower our carbon footprint and reduce waste. Win-win!

## Waste Prevention and Reduction

#### How are we doing?

Our region has reduced the amount of waste generated by 11% since 2011

Approximately 78,500 tonnes of material were reused in Metro Vancouver in 2022

Per person waste disposal has decreased by 23% since 2011

Metro Vancouver helped fund 19 repair café events in 2023

#### **Promotion and Education**

#### Waste reduction campaigns:

- "Create Memories Not Garbage" for holiday waste
- · "Think Thrice" for textiles
- "What's your Superhabit?" for single-use items

#### Construction and Demolition **Reduction and Recycling Toolkit**

• Includes opportunities to prevent waste from construction and demolition sites

#### Reuse education for businesses

• In partnership with Ocean **Ambassadors Canada** 

#### Metro Vancouver Recycles database

• Includes reuse locations

#### Advocacy

#### **National Zero Waste Council**

• Takes action to prevent waste Canada-wide

#### **Canada Plastics Pact**

• Explores plastic waste reduction

#### **Canadian Circular Textiles** Consortium

· Works to keep textiles out of the garbage

#### Provincial and Federal Single-Use **Item Regulations**

• Informed by conversations with Metro Vancouver and member jurisdictions

#### **Programs and Pilots**

#### **Regional Food Recovery Network**

Rescues food before it goes

#### Temporary storage of homes at a former Metro Vancouver landfill

 Allows homes to be moved. rather than demolished

#### Repair café funding

• Helps residents to repair broken items.

#### Reuse days

• Stops reusable items from being disposed



What actions can build on our success to enhance accountability for eliminating waste?



#### How are we doing?

18 stewardship agencies reported recycling a total of 237,731 tonnes in 2022 across our region.

Recycle BC assumed responsibility for packaging and paper products recycling from single and multifamily homes in 2014, a huge step forward for producer accountability!

17 of Metro Vancouver's 22 member jurisdictions collect garbage every other week, providing incentive for residents to throw less away.

The list of items that producers are responsible for continues to grow, with single-use items and party supplies recently added.

#### **Individual Accountability**

#### Free or low cost recycling drop off

• Helps provide a cost incentive to recycle

#### Smaller bin sizes

 Are offered by many municipalities for a lower fee than larger options

#### **Education and awareness** campaigns

• Help highlight the benefits of waste reduction and recycling and provide examples to residents of actions they can take

#### **Producer Accountability**

#### **Extended Producer** Responsibility in BC

- Many producers are responsible for recycling their products and packaging. For example:
  - Beverage containers
  - Electronics
  - Batteries
  - Packaging
  - Paper Products
  - Paint
  - Pharmaceuticals
  - Tires
  - · Used oil and antifreeze
  - Appliances (small and large)

#### Research and Advocacy

#### Metro Vancouver researches and provides input on new regulations, including:

- Expanding the types of materials that are the responsibility of producers
- Expanding accountability beyond just residential products and packaging
- Shifting accountability from municipalities to producers for recycling collection in public spaces
- Reducing additives that make materials challenging to recycle



What actions can build on our success to leverage knowledge and expertise through collaboration?

## **Collaboration and Innovation**

#### How are we doing?

#### **National Partners**

#### National Zero Waste Council

 Takes action to prevent waste Canada-wide

#### Love Food Hate Waste Canada

 Focuses on reducing wasted food

#### Canada Plastics Pact

 Works to eliminate problematic plastics

### Canadian Circular Textiles Consortium

 Calls for action to reduce the impact of the apparel industry

#### Circular Economy Leadership Coalition

Fosters collaboration on circular economy issues

#### **Circular Innovation Council**

• Puts circular economy concepts into action

#### **Local Partnerships**

#### **Reuse Days**

 Opportunities to drop off reusable items in partnership with at regional solid waste facilities

#### FoodMesh Regional Food Recovery Network

Rescues surplus food before it goes to waste

#### City Farmer Regional Compost Hotline

• Provides information on composting for residents

#### **Metro Vancouver Recycles**

 Powered by the Recycling Council of British Columbia

#### Ocean Ambassadors Canada

• Provides education resources to businesses to increase reuse

## Solid Waste and Recycling Industry Advisory Committee

 Supports Metro Vancouver in management planning, operations and policy

#### Solid Waste Management Plan Public and Technical Advisory Committee

 Represents multiple interests and provides input on the solid waste management plan update

#### **Innovation**

#### Waste-to-Energy District Energy Project

• Will provide heat and hot water for up to 50,000 homes

#### Interactive Wayfinding

Helps residents navigate new recycling and waste centres

## Artificial Intelligence Research Project:

 Examines the practicality of artificial intelligence sensors in waste bins

## State-of-the-art Recycling and Waste Centres

 Making it easier than ever for residents to drop off reusables and recyclables

#### **Construction Waste Pilot**

 Explored the possibility of making new products from discarded wood

## **UBC Sustainability Scholars Program**

• Facilitates waste reduction and recycling research

#### There are many contributors to the solid waste system in our region:





What actions can build on our success to increase participation and reduce contamination in organics and recycling programs?



Composting food scraps is an easy way to have a big impact in our region.

By using their green bins, Metro Vancouverites have:

- Saved 400,000 tonnes of food scraps from the garbage in 2021.
- Prevented 160,000 tonnes of greenhouse gases in 2021 comparable to taking 50,000 cars off the road.

## **Recycling and Composting**

#### How are we doing?

#### **Garbage Composition (2022)**

- 27% construction and demolition waste
- 25% compostable organics
- 19% recyclables
- 5% textiles
- 3% single use items
- 20% materials with limited recycling options

#### Recycling Rate (2022)

- Multi-family: 36%Single-family: 64%
- · Commercial/Institutional: 48%
- · Construction & Demolition: 80%

#### **Progress**

- Compostable organics disposed with garbage have decreased from 35% in 2011 to 23% in 2023.
- Recycling rate has increased from 57% in 2011 to 65% in 2023

#### **Organics**

#### **Organics Disposal Ban**

Encourages food scraps and yard trimmings to be composted

## Every-other-week Garbage Collection

 Provides an incentive for residents to use their green bin

#### **City Farmer**

 Provides resources and subsidized backyard composters for all residents

#### Municipal and Private Organics Management Facilities

 Process our organic material into usable end products

#### Recyclables

#### RecycleBC

 Has helped create a consistent province wide system for residential recycling of packaging and printed paper

#### What can be recycled

 Continues to grow with the help of organizations such as RecycleBC

#### **Recycling and Waste Centres**

 Continue to offer opportunities to drop off more types of items, with recycling depots planned in North Surrey and Langley

#### **Reducing Contamination**

#### What goes where?

- Municipalities have programs in place to educate residents about what belongs in their green bins and recycling containers
  - The Recycling Council of BC allows residents to call to ask questions about where to recycle specific items

#### Pastics labelled compostable

Are considered garbage in most municipalities

#### "Food Scraps Aren't Garbage" Campaign

 provides residents with tips on proper green bin usage



What actions can build on our success to promote confidence in recycling systems?



#### How are we doing?

Metro Vancouver tracks recycling tonnage for 15 commodities

Detailed solid waste statistics are available in annual reports on Metro Vancouver's webpage. Additional years back to 2010 available upon request. In a recycling rate review, only 2 out of 11 jurisdictions reviewed measure and report on as many material types as Metro Vancouver Detailed methodology for how Metro Vancouver calculates the regional recycling rate is provided in each year's annual solid waste and recycling report.

#### Measurement

#### Metro Vancouver measures:

- Tonnes recyclable and reusable material collected by material type and by facility
- Tonnes of recyclable material remaining in the garbage through waste composition studies

### Metro Vancouver collects data from others on:

- Overall tonnes managed by private facilities, by commodity type
- Tonnes managed by extended producer responsibility organizations, by material type
- Recycling rates for construction and demolition facilities

## Reporting Annual reports

#### Includes: Total tonnage by material type, overall and sector specific recycling rates, calculation methodology

#### **Biennial reports**

Includes: Summary of waste strategies, performance measures, and progress toward goals

## Metro Vancouver Solid Waste System Factsheets

Includes: Detailed information by for each Metro Vancouver solid waste facility

#### **Waste Composition Studies**

Includes: Tonnage of materials remaining in the garbage

#### Performance Monitoring Dashboard

Includes: Overview of recycling rate and tonnes disposed

#### **Education**

- Product stewards provide resources on their webpage showing what happens to recycling
- Recycling Council of BC operates a hotline where residents can ask where to recycle items
- Residents can call City Farmer to ask questions about managing organic materials
- Questions can be directed to Metro Vancouver's infocentre
- Metro Vancouver publishes a map of solid waste facilities around the region



# What actions can build on our success to help us expand inclusive programs and services?



## **Inclusive Programs and Services**

#### How are we doing?

#### Accessibility

- Information on Metro Vancouver's website is available in over 130 languages
- A 2022 system review concluded that 98% of the regional population has maximum 30 minute drive times to access regional recycling and waste centres
- 12 municipalities provide bulky item collection

#### **Engagement**

 Metro Vancouver Initiated a successful collaborative engagement process to work with non-profit organizations and connect with underrepresented and equity-denied groups who otherwise may not be aware of or have access to opportunities to provide input to Metro Vancouver

#### **Resources and Infrastructure**

#### **Providing information**

- Online search tools provided by the Recycling Council of BC help provide recycling information
- Metrovancouver.org can be translated into over 130 languages

## Improving access to recycling services

- Since 2011, the region's solid waste system has expanded to include many new regional and municipal facilities
- Free recycling drop-off service at Metro Vancouver recycling and waste centres

#### **Programs and Campaigns**

#### "Food Scraps Aren't Garbage" Campaign

• Addresses specific barriers for multi-family residents.

#### Binners' Project Coffee Cup Revolution

 Highlights the importance of the binners community in the solid waste system

## Solid waste management plan update collaborative engagement initiative

 Provides funding for not-for-profit organizations, including those representing underrepresented or equity-denied communities

#### Strategic Plans

## Metro Vancouver's accessibility plan

 Intends to break down barriers and become a more accessible and inclusive region

## Metro 2050 Regional Growth Strategy

 Intends to support the creation of complete, connected, and resilient communities



What actions can build on our success to plan for future infrastructure and systems for waste management across the region?

## Infrastructure and Systems

#### How are we doing?

#### **Regional Solid Waste Facilities**

- · Recycling and waste centres
- · Waste-to-energy facility
- Landfill
- Municipal recycling depots funded in part by Metro Vancouver

#### **Private Facilities**

- Recycling brokers
- Organics management facilities
- · Construction & demolition facilities
- Private landfill

#### **Resources and Infrastructure**

#### **Recycling and Waste Centres**

 A series of recycling and waste centres where residents and businesses drop off garbage, yard trimmings and other recyclables, and materials for reuse

#### **Member Jurisdiction Facilities**

- The Vancouver Landfill and Vancouver South Transfer Station/ Zero Waste Centre also offer recycling and waste disposal services
- Five municipalities operate their own recycling depots funded in part by Metro Vancouver

#### **Private Facilities**

- Metro Vancouver licenses private facilities which manage various materials
- Other private businesses that manage materials such as concrete textiles, and scrap metal
- Non-profit organizations and industry organizations manage reuse networks and facilities.

#### Disposal

 Garbage is disposed at the Vancouver Landfill, the Waste-to-Energy facility, or private landfills for excess garbage

## Programs and Campaigns

#### Reuse

 Household items for reuse are generally managed by non-profits, thrift stores and donation bins for textiles and books

#### Collection

- Single-family homes: Municipalities provide curbside collection of garbage, recycling, and organics
- Apartments and Businesses: Provided by the private sector or municipality

#### Recycling

 Private or non-profit organizations sort and process materials for reuse, recycling, composting and energy recovery

### Construction and Demolition Material

 Construction and demolition materials are managed at licensed private facilities

#### Strategic Plans

#### Improving the system

 Over time, system upgrades are required to increase waste reduction and recycling and ensure system adaptability and resiliency to changing population and distribution over time

#### **Generator Levy**

 Every person who generates municipal solid waste helps fund the regional solid waste system.

#### Waste-to-Energy Facility District Energy System

• Will provide heat and hot water for up to 50,000 homes, reduce greenhouse gas emissions by up to 70,000 tonnes per year, and triple the energy efficiency of the Wasteto-Energy Facility