



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

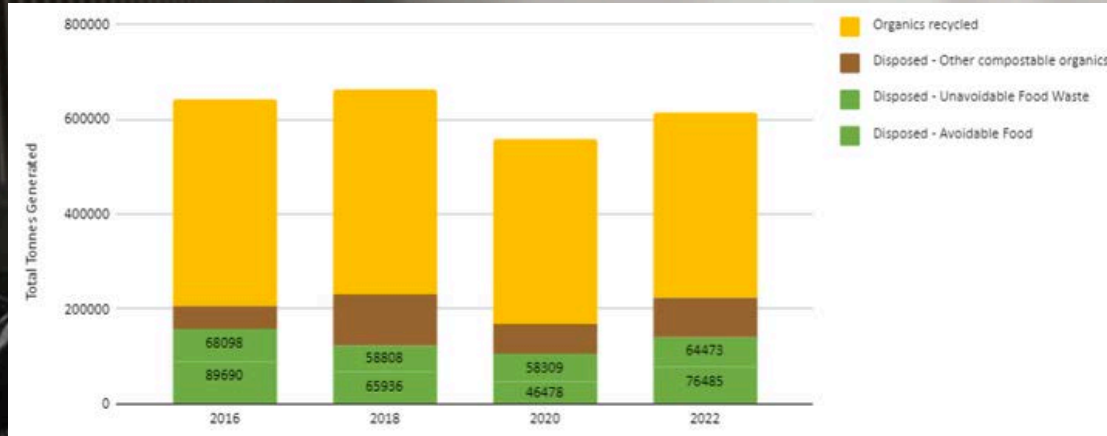
6 meetings conducted

- 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	
B1: Residential Food Waste Recycled [tonnes]	N/A	N/A	N/A	N/A	N/A	N/A	
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							
Total Food Waste Generated [tonnes] = A + B	395,283	340,244	299,852	407,313	350,018	N/A	
P: Population	2,497,052	2,550,047	2,725,392	2,766,953	2,807,469	2,854,375	
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%

TARGET 12-3

50%

HALVE GLOBAL PER CAPITA FOOD WASTE



Food Waste & Organic Waste Data



SDG 12 HUB



Americas



Food waste (Tonnes)

Food waste per capita (KG)

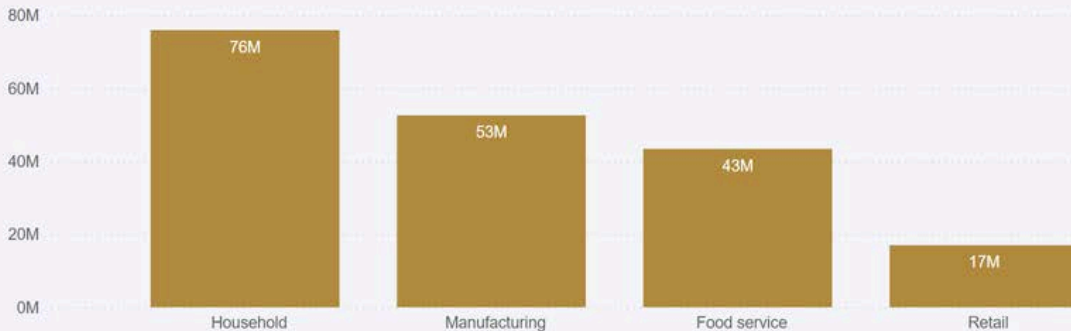
189.01M

Food waste (tonnes)

186.48

Food waste per capita (KG)

● Food waste (Tonnes)



Waste Hierarchy & Brainstorming

PREVENTION



PREVENTION

PREVENTION POLICY

- Use the 5R's as a guide to develop a waste prevention policy and help support the plan. Review the plan regularly.
- Encourage marketing and fair waste gathering techniques.

PARTNERSHIPS

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

ACCOUNTABILITY

- Report publicly on food waste data.
- Set clear targets and monitor progress.
- Clearly define roles and responsibilities.

FUNDING / INCENTIVES

- Provide incentives for food waste reduction.
- Use funding to support food waste reduction.
- Use funding to support food waste reduction.

FOOD SERVICE

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

FAMILIES

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

RETAIL

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

ORGANICS (NON FOOD)

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

COMPOSTABLE PLASTICS

- Use partnerships to share information and resources.
- Use partnerships to share information and resources.
- Use partnerships to share information and resources.

RESCUE



RESCUE

- Clarify food rescue options for your organization.
- Develop systems to support food rescue.
- Share success of food rescue with partners.
- Clarify food rescue options for your organization.

RECYCLING



RECYCLING

RECYCLING

- Set realistic recycling targets.
- Clarify technologies preferred by MVA.
- Mandate use of clear bags for waste (garbage).

COMPOSTING (ICI)

- Provide resources for food waste composting.
- Monitor progress of food waste composting.
- Use funding to support food waste composting.

COMPOSTING (FAMILIES)

- Use funding to support food waste composting.
- Use funding to support food waste composting.
- Use funding to support food waste composting.

WOOD WASTE

- Use funding to support food waste composting.
- Use funding to support food waste composting.
- Use funding to support food waste composting.

UNACCEPTABLE

COMPOSTING PROCESS

- Use funding to support food waste composting.
- Use funding to support food waste composting.
- Use funding to support food waste composting.

BIOMATERIAL/PROCESSING

- Use funding to support food waste composting.
- Use funding to support food waste composting.
- Use funding to support food waste composting.

BIOGAS

- Use funding to support food waste composting.
- Use funding to support food waste composting.
- Use funding to support food waste composting.

ANIMAL FEED

- Use funding to support food waste composting.
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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)
 - Food policies (e.g. Regional Planning's work on Food Systems)
 - 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 after education

- 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



Clarify what can be donated

- Ex: surplus food from buffets can be donated

Solution Types:

All Solution Types ▾

All Solution Types ▲

Prevention >

Rescue >

Recycling >

Sectors:

All Sectors ▾

All Sectors ▲

Farm

Foodservice

Manufacturing

Residential

Retail



Recycling - food waste

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.

✘ Unacceptable

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
 - Food Waste Recycled: split unknown

Food waste = 8-10% global GHG emissions

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



Include indirect emissions

- Territorial emissions: 15 MtCO₂e
 - Food = 3%
- Consumption based emissions: 23 MtCO₂e
 - Food = 19%

Require carbon footprint reporting

- For businesses of a certain size

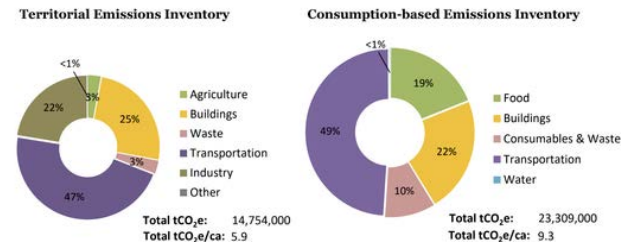


Figure 1: Comparison of the Metro Vancouver Regional Territorial GHG Emissions³ (left) and Consumption-based GHG Emissions (right), 2015



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)

Carbon footprint of wasted food (tonnes CO2e / capita)



Food Efficiency =

$$\frac{\text{Food waste generated}}{\text{MV population}}$$



#3: No organics in garbage

Like in Squamish

#2: Reduce total organics

Yard Efficiency (kg yard /capita)

Total Organics Recycled (tonnes)

Total Organics Disposed (tonnes)

#4: Improved food security

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

AUSTRALIA



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...

champions123.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 waste data



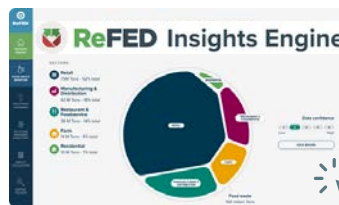
BetterTable™ Academy



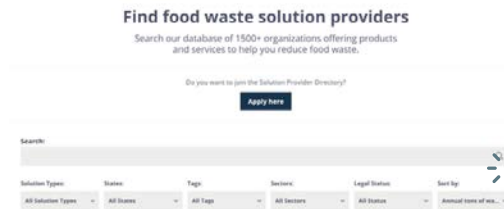
Food Synergy Movie



ReFED Insights Engine



ReFED's Find food waste solution providers



ZERO
WASTE

