Food Waste Reduction & Composting: Information Sheet

A part of the Local Food Security Handbook

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Introduction

This handbook section is part of the Zero Waste & Circular Economy Handbook - a toolkit to provide local elected leaders with inspiration, initiative and case study examples, resources, sample motions/reports, and tools to support local climate action.

The Handbook is a living document, which means we will be adding your successful motions as they happen, and it provides an up-to-date, real-time guide to the change being driven by Climate Caucus members from coast to coast to coast.

Are we missing any key resources? Submit it here or email us!

Context

In Canada, 5.6 million tonnes of organics are generated annually and of that, 4.3 million tonnes are disposed of in landfills and incinerators. Not only is this a huge amount of waste but it represents a significant loss of valuable nutrients. Research in BC showed organics comprises 40% of waste streams, representing a cost to local governments as it fills up landfills more quickly. When organics are in landfills, the anaerobic conditions help to create methane–a greenhouse gas 84 times as powerful as carbon dioxide[1] and that CO2 equivalent emissions from organics in Canada are 4.7 million tonnes. Globally it is estimated that one-third of food is wasted across the supply chain. Avoiding food waste can have four times the emissions reductions impact as changing to composting from landfilling of organics. Reducing food waste and composting organics could cut emissions in Canada by 2.6 million tonnes (6% of Canada's reduction shortfall). Reducing food waste and food recovery can also support those in need of food and contribute to food resilience.

Food Waste Reduction and Composting Initiatives

Climate Caucus has ranked the following initiatives from beginner to expert, based on Complexity to implement, Staff time & expertise, and Political capital. Please note, these rankings are our own best judgements.

🟩 Green Square = Beginner
🟦 Blue Square = Intermediate
◆ Black Diamond = Advanced
◆◆ Double Black Diamond = Expert

[1] Methane (CH4): One of the six *greenhouse gases (GHGs)* to be mitigated under the *Kyoto Protocol* and is the major component of natural gas and associated with all hydrocarbon fuels. Significant emissions occur as a result of animal husbandry and agriculture, and their management represents a major *mitigation* option.

Roll out the Love Food Hate Waste Program

The Basics:

- Work with Food Mesh to roll out this campaign in your community

Examples:

- Love Food Hate Waste -resources developed in the UK but brought to Canada by the National Zero Waste Council to assist with reducing food waste. It is now run by Food Mesh.

Set Food Waste Reduction Targets

The Basics:

- Determine the amount of food waste going to waste in your community and set targets to reduce it through better use of food (Love Food Hate Waste).
- Set up systems to monitor and report back.

Examples:

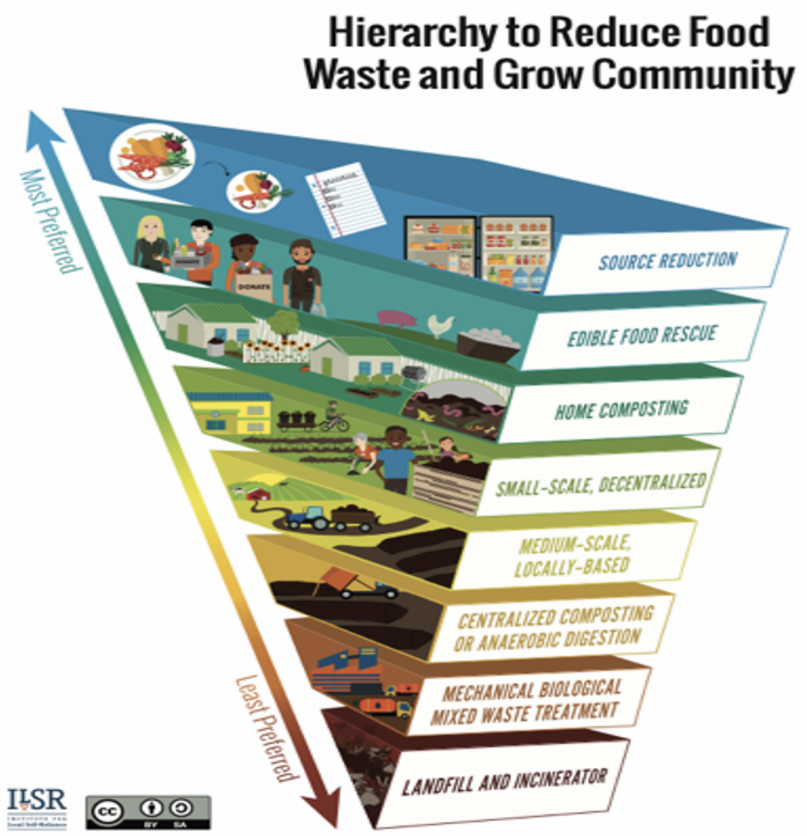
- Pacific Coast Collaborative -jurisdictions including states, provinces and cities have committed to reducing food waste by 50% by 2030

Develop a Food Waste Reduction and Organics Management Plan

The Basics:

- Work with community partners to develop a plan for both residential and ICI sectors.

- The plan can be a separate plan or part of the Zero Waste and Circular Economy Strategy.
- Use the hierarchy shown below starting at the top.



Examples:

- Guelph-Wellington, ON
- City of Vancouver, BC -part of Zero Waste Strategy
- Sea to Sky Food Recovery Plan

Case Study - Guelph Wellington, ON - Our Food Future Pilot

In 2019, the City of Guelph and the County of Wellington were awarded $10 million through Infrastructure Canada's Smart Cities Challenge to develop Canada's first circular food economy. For four years from 2020 to 2024 Our Food Future lead 80+ projects working with more than 1,000 stakeholders to explore local actions contributing to circularity in the food systems.

Learn more HERE or by watching our webinar.

Resource:

- US EPA tool

Set up an organics collection and composting program

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The Basics:

- Set up composting system directly or partner with others to ensure a composting system is available
- Scale compost facilities to the needs of the community (factor in less material when food waste is reduced)
- Collection can be by drop off or curbside. If curbside, consider reducing waste and recycling collection frequency to offset the collection costs.
- Education and coaching are needed to roll out and maintain successful programs and keep contamination levels low
- Backyard composting can reduce the volumes to process and create healthier gardens
- While there are no different materials to be handled, setting up programs to reduce human-wildlife conflicts at the same time can be helpful
- Once program is working well, ban organics from disposal (landfill or incineration)

Examples:

- Gibsons, BC -curbside collection with very low contamination rates (0.5%), 45% less material to landfill with good public education, audits and feedback to the public. Adjusts messaging based on audits
- Net Zero partnerships for compost facilities (such as Salish Soils for Gibsons and Sea to Sky Soils for Pemberton-Whistler-Squamish corridor)
- Victoria Compost Education Centre helps to educate citizens on composting
- Guelph, ON encourages backyard composting, has residential curbside collection of organics processed at their own in-vessel facility and has been working on reducing food waste and collection from the ICI sector
- City of Yellowknife, NWT

- Consider moving to every other week garbage and recycling collection with weekly organics pickup to incentivize source separation and reduce costs -Toronto and Vancouver

Partner with local groups to develop an Urban Gleaning Programs

The Basics:

- Gleaning programs focus on harvesting food from local farms, private or public fruit trees, and community gardens.
- Event volunteers can then take the produce home with them or donate gleaned food to food banks, shelters, community kitchens or other nonprofits.
- Promote gleaning programs in your area. Make food providers aware of available tax incentives.
- Lead by example by gleaning from City facilities or using gleaned food in municipal operations.
- This is an important program to manage edible landscapes in your community

Examples:

- Loving Spoonful Gleaning Program, Kingston, ON
- Gleaning Project, Chatham-Kent Food Policy Council, ON
- Food Policy Council's Gleaning Abundance Program, Kamloops, BC
- Hidden Harvest, Ottawa, ON

Resources:

- Urban Sustainability Directors Network - Urban Gleaning Programs

Challenges and Solutions

Challenges	Solutions

Public knowledge	• Educate kids and Parent Advisory Committees about how to compost and benefits as well as waste-free lunches • Provide technical support for use of the organics and composting systems (particularly backyard composting)
Food waste	• Share the Love Food Hate Waste tools to consumers • Consider encouraging a food exchange system like Food Mesh or food rescue businesses like Loop • Encourage zero waste cooking
No market for compost	• Purchasing policies to help support use of materials from the processing facilities
Need for infrastructure	• Set out plans to restrict organics disposal to landfills or incinerators (gives business time to plan and also it is a business opportunity)
Need to be wildlife proof	• Look at others that have developed wildlife proof composting solutions (such as North Shore Recycling Program) developed in partnership with local wildlife, WildSAFE or Bear Smart group • Note that organics in a bin is the same material that was in the waste or garbage bin. Both sets of bins need to be managed to minimize wildlife conflicts.
No organics collection for multi-family buildings	• Municipal bylaws that require multi-stream collection (waste, recycling and organics). Examples in Metro Vancouver, Squamish, Okotoks
Multi-family collection may not hold individuals to account	• Develop behaviour change programs and systems to reduce contamination and increase participation • Provide feedback on ongoing manner • Find and develop local champions
Costs	• Partner to develop an organics processing facility or look to recent funding support from federal and some provincial governments to assist in the building • Consider it an economic development opportunity and link with key food waste producers in the area • Consider switching from weekly to every-other-week garbage pick up (if curbside pick up) • See if EPR programs can pay for recycling collection (if not already doing so) • Encourage buying of finished product (note benefits also for building soil, moisture retention, storm

	water management, etc. Washington State has done this) • Scale facilities appropriately (do not over build, work to reduce food waste so overall volume is less and better use of food) • Look at costs and benefits over life cycle (waste savings) • Set tipping fees to drive materials from disposal to composting and ensure tipping fees are paid for organics disposal • Consider if EPR programs should be paying for the compostable packaging component
Smell of facilities (possible)	• Keep odour issues in mind when zoning for composting facilities and future zoning near facilities
Contamination	• Audits, education and feedback to public • Keep a list of common issues and also work with other levels of government and local suppliers to eliminate problematic materials such as some compostable plastics, biodegradable products, fruit stickers, etc.) • Provide list of what works in the local compost system (can be very different depending on the system) • Consider use of technology for de-packaging and screening
Small community	• Scale systems to the size of materials and allow for some redundancy as small, local systems provide education and resilience. • Backyard composting, neighbourhood scale, drop off at transfer stations, etc.
Organisational capacity	• Partner with other communities or community groups • Use existing resources
"Renewable" natural gas systems for landfills encouraging organics to landfill	• Note that landfills are not able to capture 100% of the methane (even 75% is optimistic) and some systems at landfills are designed to accelerate methane emissions so take care that they are not increasing impacts overall • Focus on renewable natural gas from anaerobic digestion (in a system that also produces usable compost) scaled to the minimum ongoing amount of organics to be produced if food and yard waste is minimized

	• Ensure contracts for natural gas do not drive ongoing or increased wasting

Climate Caucus Resources

Climate Caucus Municipal Grants List - detailed list of relevant municipal grants
Policies and Resources Library - list of motions, bylaws, council reports and briefing notes