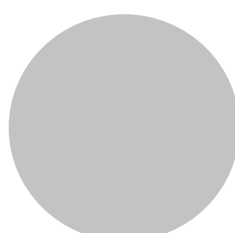
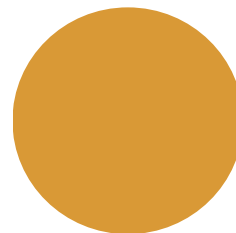
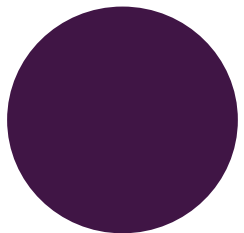
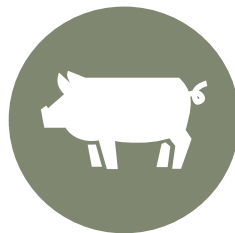
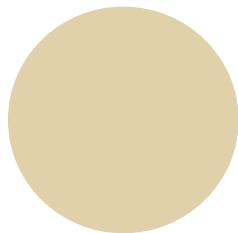
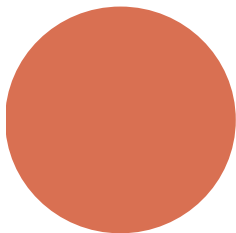
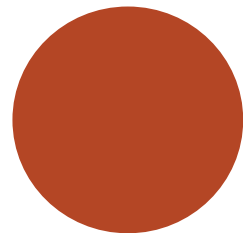
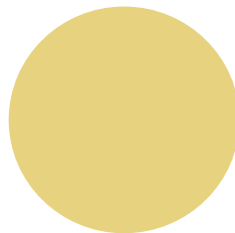
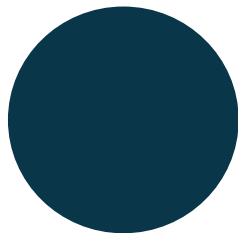


# REDUCING HOUSEHOLD FOOD WASTE:

## A Municipal-Regional Toolkit



# ACKNOWLEDGEMENTS



This resource is the second topic-specific tool published as part of a project funded by the [Ontario Trillium Foundation](#). It is designed to accelerate food waste reduction and diversion at the regional and municipal level by guiding the implementation of initiatives and policies necessary for reform. The Ontario Trillium Foundation is an agency of the Government of Ontario.

[Sustain Ontario](#) is a province-wide cross-sectoral alliance that works to create a food system that is healthy, ecologically resilient, equitable and financially viable. Sustain collaborates with its members and other food and farming stakeholders on research, policy development, and action, addressing intersecting food and sustainable agriculture issues. Among other resources, this toolkit is hosted on Sustain Ontario's [Food Initiatives Greenhouse](#), an online collection of community-vetted food strategies, tools and resources.

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# EXECUTIVE SUMMARY

Food waste costs Canadians an astonishing \$31 billion each year, with consumers wasting almost half of this production value. Concern for this is quickly gaining momentum with municipalities, institutions, community organizations and other sectors across the food system. Reducing food waste in households and communities not only opens up avenues for economic benefits, but it also has positive environmental and social outcomes. This toolkit introduces household food waste at the regional scale, presenting the key steps to initiating food waste reduction and diversion programs and campaigns. With each step, corresponding examples of food waste initiatives showcase leading programs and projects to inspire future initiatives.

## Key Findings:

- **Currently, few food waste initiatives have been evaluated.** More waste audits, behavioural surveys and social marketing research are needed in order to understand consumer behaviour and to begin to standardise procedures across the province. Exemplary initiatives from Ontario and the rest of Canada are highlighted in this toolkit.
- **Reducing food before it reaches the point of diversion is ideal.** Teaching consumers how to plan and buy only what is necessary reduces consumer costs and municipal waste transportation costs, limits resources wasted during production, and reduces GHG emissions produced by waste removal trucks and landfill decomposition.
- **The largest barrier to reducing food waste remains the lack of knowledge** about why individuals waste food, and lack of **awareness** on the consumer side about how much food is wasted. Crossing the threshold into the home and engaging with household practices to promote reduction is a better tactic than engaging only with end-of-pipe diversion solutions.<sup>1</sup>
- **The best programs use a mix of education campaigns and policy to create change.** Initiators should work with consultants to develop effective social marketing strategies that appeal to target audiences.
- **Successful programs have welcomed collaboration** and partnership with community organizations and with other groups across food sectors.
- **A value-added approach to food encourages reduction** through the purchase of local, sustainable foods and the associated story of the food coming from “farm to table”.
- **Promoting circular-economy initiatives** encourages reuse and diversion through resource recovery and minimal waste generation at end of life, “closing the loop” on food waste.

*Reducing Household Food Waste: A Municipal Regional Toolkit* has been designed for municipal and regional government, food policy councils, community groups and other not-for-profit organizations to strengthen food waste campaigns or policy initiatives in their region. It is geared towards multiple stakeholders because we recognize the importance of working collaboratively and simultaneously across sectors in order to improve Ontario's food systems. Currently, around one-third of food produced for global human consumption is lost or wasted each year.<sup>2</sup> In Canada, \$31 billion of food is wasted annually.<sup>3</sup> Avoidable food waste occurs at multiple levels along the food system hierarchy, but almost half of Canadian food is wasted at the household level and is, for the most part, avoidable.<sup>3,4</sup> However, there is currently no legislation at the provincial level to take action against food waste. This toolkit is designed to help leverage Ontario consumers' potential for substantially reducing household food waste while offering economic benefits to local and regional economies, reducing the food waste footprint, and encouraging strategic partnerships with stakeholders across sectors.

Concern for food waste is growing quickly, but there are relatively few reduction initiatives or evaluations of food waste programs in Ontario. The focus of this toolkit, therefore, is on providing promising practices and proven methodologies, where they do exist, for reducing food waste in households and implementing diversion programs. The toolkit provides examples of programs which take a value-added approach to food, as well as those which encourage cross-sector collaboration, food literacy, the valorization of local or healthy food, and circular economy activity through their directives.

# KEY TERMS

Southern Ontario is facing a landfill shortage, placing stress on regions and municipalities to come up with alternative solutions. Although backyard, community or regional composting facilities divert waste from landfill, the best opportunity to avoid waste is to encourage reduction before the point of diversion. Food waste prevention reduces greenhouse gas emissions about eight times more than diversion from landfill via anaerobic digestion.<sup>6</sup> With less waste put at the curb, municipal costs also decrease.

## Food Waste

**Avoidable food waste** is food and drink thrown away because it is no longer wanted or has expired. What is considered avoidable may differ between regions or households. Throwing away avoidable food waste can increase consumer food costs by up to 10%.<sup>3</sup>

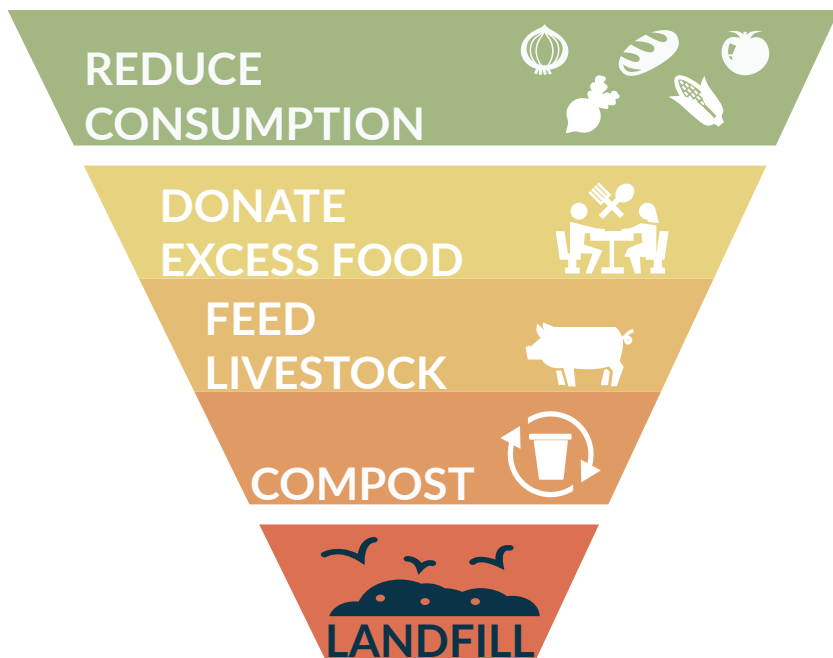
**Possible avoidable food waste** refers to food and drink that some eat and others do not, such as bread crusts, or food that can be eaten when prepared in one way but not in another such as potato skins.

**Unavoidable food waste** is waste produced from food and drink preparation that is inedible.<sup>5</sup>

## Organic Waste

This includes both kitchen waste and yard or garden waste. Currently, metrics and evaluation data about organic waste programs are more common than specific data about food waste reduction. As food waste initiatives increase in number, new data will enable the forecasting of the costs and benefits of potential programs.

## Reduction vs Diversion



**Reduction** means avoiding food waste by only buying what is needed and consuming all food before it reaches the point where it needs to be thrown away. Measures to avoid food waste can be taken at each step of the food system.

**Diversion** is the act of reducing waste going to landfill by placing it in another bin or location. For example, placing fruit and vegetable peels in an organics bin or backyard composter, or donating excess goods to a food bank.

# The Circular Economy

An alternative to the traditional linear economy, circular economy proponents strive to minimize the use of raw materials, maximize the useful life of materials through resource recovery and minimize waste generated at the end of life of products and packaging.<sup>6</sup> A circular economy aims to “close the loop” on waste, increasing resource productivity and reducing the environmental impacts of production and consumption.<sup>7</sup>



## Community-based social marketing

This [strategy](#) is an alternative to information-intensive media campaigns and has been shown to be successful in promoting behavioural change. It is composed of four steps:<sup>8</sup>

1. Uncovering barriers to behaviours
2. Selecting which behaviours to promote
3. Designing a program to overcome the barriers to the selected behaviour
4. Piloting the program and evaluating it following implementation

## Value-added approach

This approach combines food waste efforts with nutritious meal planning and/or focus on local food. Proponents emphasize the story of local food by teaching about where it was grown and who grew it. Appreciation for good, nutritious food that is the product of hard labour means less food is wasted.

# RATIONALE FOR REDUCING HOUSEHOLD WASTE AT THE MUNICIPAL/REGIONAL LEVEL

In Ontario, waste management is organized at the municipal and regional level, giving local officials the opportunity to initiate waste reduction and diversion policies and programs. Why is this so important? Reducing food waste will have environmental, economic and social benefits.

## ENVIRONMENTAL RATIONALE



The global carbon footprint of food produced and not eaten was estimated at 3.3 G tonnes of CO<sub>2</sub> equivalent, or 7% of all GHG emissions in 2007. Upon reaching landfill, food and organic materials do not become compost. Instead they produce leachate, a toxic liquid that drains from solid waste, as well as methane gas, which has a global warming effect that is 25 times greater than CO<sub>2</sub>.<sup>9</sup>

The “[Love Food Hate Waste](#)” Waste Reduction Action Programme (WRAP) awareness campaign in the UK encourages the reduction of consumer and household food waste to achieve environmental and economic benefits. The organization [estimates](#) that it has avoided the equivalent of 3 million tons of CO<sub>2</sub> emissions between 2000 and 2008.

## ECONOMIC RATIONALE



Food waste in Canada amounts to \$31 billion annually, with consumers responsible for 47% of this value.<sup>3</sup> It is estimated that consumers spend \$28 every week on wasted food.<sup>10</sup> Much of this cost is avoidable. Food waste reduction policies and programs may encourage circular economy initiatives and save consumers and municipalities the cost of avoidable food waste.

The “Love Food Hate Waste” campaign succeeded in reducing municipal waste pick-up costs by about £85 million across the UK in 2012, and reducing the total cost of household waste by over \$5 billion USD (retail value). While their six month West London campaign cost \$270,000 USD, the boroughs were estimated to have saved \$2.1 million USD in avoided disposal costs.<sup>11</sup>

# SOCIAL RATIONALE

In Ontario, where almost 12% of households face food insecurity, throwing away avoidable food waste is problematic.<sup>12</sup> This statistic calls for policy changes to facilitate accessibility to recovered food through food banks or food redistribution centres. Recovering food does not present a final solution to food waste or food insecurity, but it is still a much needed method for increasing accessibility to fresh and healthy food.

[Second Harvest's](#) food rescue and delivery program provides fresh, nutrient dense food to social service agencies across Toronto, who in turn provide meals and food to people experiencing hunger. This provides an alternative solution for businesses that might otherwise bring their products to landfill. The organization provides over 22,000 meals a day to those in need, with 40% of the food supporting children and youth.



Value of Food Wasted from Production to Consumption

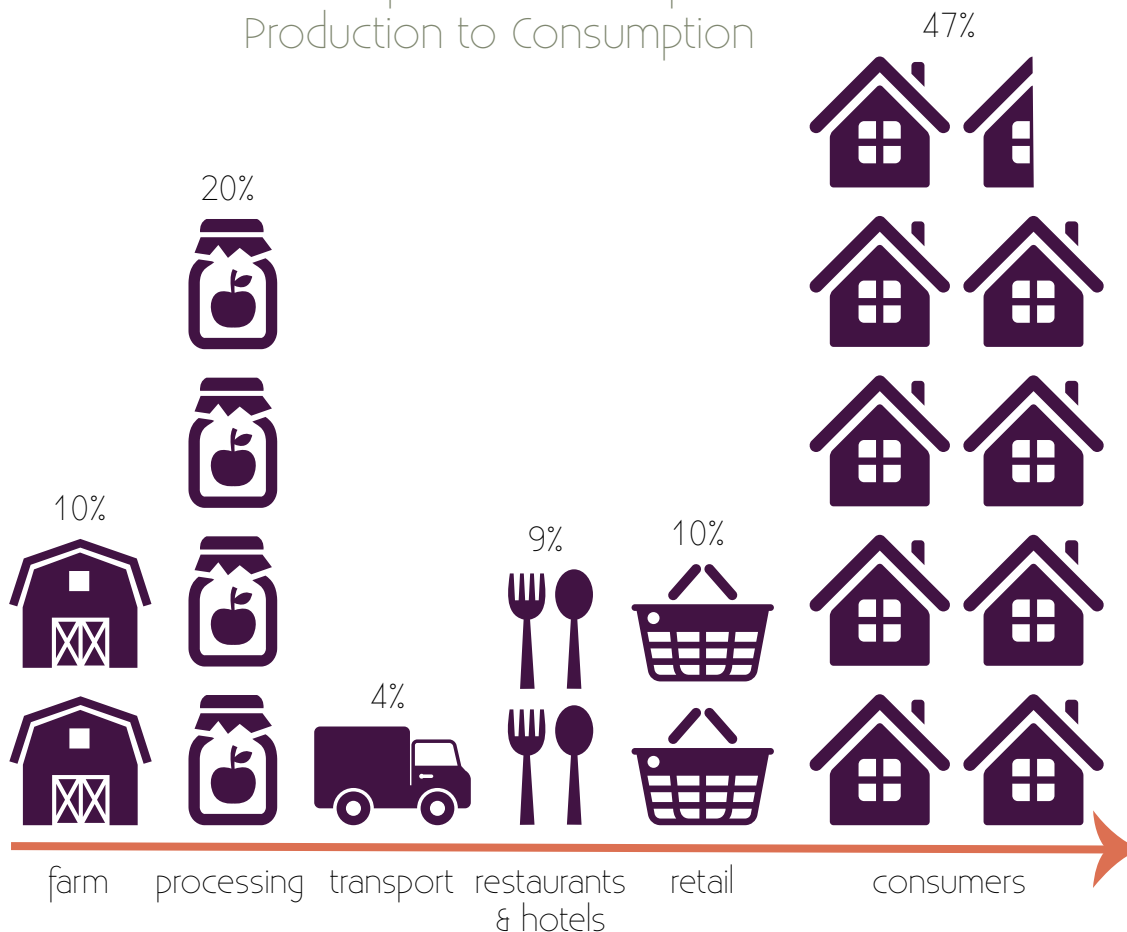


Diagram adapted from: [Gooch M, Felfel A, ed. Caroline Glasbey. \\$27 Billion Revisited: The Cost of Canada's Annual Food Waste. 2014.](#)

# WHY DO CONSUMERS WASTE FOOD?

Most consumers do not waste food on purpose. In fact, many individuals feel guilty about disposing of edible food. However, food waste is not always foremost in consumers' minds - healthy eating and affordable food likely come first. Often, those responsible for household meals waste food because of how domestic food practices are socially organized.<sup>13</sup>

"It is clear that organising and running a home is fraught with pressures and tensions. There is a clear case for an approach that focuses on alleviating the pressures highlighted with the aim of reducing food waste as a consequence. Any intervention should not make food waste an additional thing to worry about, rather should ease existing demands, making the intervention genuinely useful/desirable and not requiring the audience to be persuaded to use it. Solutions that increase the perceived value of food are also worth exploring."<sup>14</sup>

*Domestic Food Waste Insights Report, Shift Design*



## Planning stage

- Busy, unpredictable lifestyles
- Not planning meals in advance or taking into account social plans for the week



## Shopping stage

- Shopping when tired, hungry or in a rush
- Over-buying and spontaneous purchasing
- Opting for what is most appealing in store rather than leftovers



## Storage stage

- Lack of knowledge about best before dates
- Food stored out of sight and out of mind in fridge or freezer
- Lack of knowledge about how to prolong product life



## Preparation stage

- Preparing more food than necessary
- Not knowing how to combine old ingredients with new ones
- Considering leftovers inappropriate for family



## Consumption stage

- Serving larger than necessary portion sizes
- Not happy with the quality of the meal
- Over-ordering take-out food



## Disposal stage

- Not interested in eating or giving away leftovers
- Not using green bin because of fear it will smell or attract vermin
- No green bin and no garden for a composter

The following section offers a step by step guide to implementation that is by no means exhaustive. Food waste campaigns or programs will differ depending on local needs and circumstances. Visit our [greenhouse](#) for more examples, resources and information about evaluations.



Develop Strategic Partnerships



Acquire Funding



Collect and Analyse [Existing Resources and Tools](#)



Gather Data from your Region



Design a Messaging Campaign



Launch a Food Waste Reduction or Diversion Campaign



Evaluate  
\*Programs marked with this symbol have been evaluated.



Partners	Role
Municipal and Regional Governments	Municipal and regional governments should consider collaborating with other Ontario municipalities or regions to share information or experience. They also could benefit from working with local groups such as regional food policy councils which are in a good position to advise governments about policy changes and programs.
Public Health Units	Public health units can act as educators for residents about household food waste. They also can collaborate with waste management authorities to form campaigns to encourage healthy eating as well as reducing and diverting food waste.
Academic Researchers	Academic researchers offer municipalities the chance to gain in-depth knowledge of how and why individual households produce food waste. Municipalities offer academic researchers the chance to publish their findings in a quickly growing field. Funding may exist for researchers to work as consultants, or researchers may bring funding and student assistants to conduct research.
Private Waste Management Firms	Environmentally-minded private waste management firms can enable residents to divert food waste from landfill when green bins, backyard or local composting facilities are unavailable.
Social Marketing Consultants	Opportunities to work with social marketing consultants can improve targeted messaging strategies and education endeavours.

# COLLABORATING ACROSS MULTIPLE SECTORS

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The [Ontario Food Collaborative](#) is an initiative whose members aim to bring together multiple stakeholders from across the province and to break down boundaries between sectors.

## Goals

- Spread awareness of issues related to food waste and healthy eating
- Demonstrate the case for policy change that will reduce food waste and positively impact healthy eating
- Create effective partnerships that will enable work to be aligned across municipalities and stakeholders, strengthen local food systems and meet both food related goals
- Create common messaging to help consumers improve their health, save money on food and municipal infrastructure, and reduce food waste
- Produce effective metrics for municipalities to adapt practices based on data, improve understandings of the links between healthy eating and food waste reduction as well as make new links using new data



Municipal budgets are not generally sufficient to absorb the costs of a food waste audit. Proponents of a waste reduction or diversion program likely will have to search for external funding.

### The Green Municipal Fund

- The Federation of Canadian Municipalities (FCM) offers [grants](#) and loans for projects that are spearheaded by municipalities and for projects that are initiated through a collaborative relationship between a municipality and an organization/outside partner.
- The fund can provide up to \$175,000 for plans and feasibility studies and \$350,000 for pilot projects. Loans also are available to supplement further costs.

### EcoAction Community Funding Program

- Environment and Climate Change Canada offers [funding](#) for community-based, not-for-profit organizations.
- Supports projects that address clean air, clean water, climate change and nature.
- Up to a maximum of \$100,000 per project.

### Green People Fund

- Offered by the [Ontario Trillium Foundation](#)
- Priority [outcome](#) is to help people reduce their impact on the environment.
- Funders are required to: help people connect to the environment and understand their impact; take deliberate actions to benefit the environment; and develop mechanisms to promote responsible stewardship.

### Friends of the Greenbelt Fund

- Grants are available for municipalities, for profit and not-for-profit organizations.
- Offers the [Local Food Investment Fund](#) to provide financial support to farmers and local food leaders with the goal of increasing the amount of local food consumed across Ontario.
- Grants are offered through the [Broader Public Sector Stream](#), the [Market Access Grant Stream](#), and the [Local Food Literacy Grant Stream](#).



# GATHER DATA FROM YOUR REGION

Currently, few tools exist that outline parameters for conducting food waste audits. Collecting and sharing local data can give others a head start when conducting their own research. For existing resources, see the [FLW Protocol](#) and [WRAP's food waste audit template](#).

## FOOD WASTE RESEARCH PROJECT

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[Researchers](#) from the University of Guelph conducted waste audits of 222 Guelph households and surveys at 61 of these homes and [published their results](#). By combining survey research with curbside waste audits, researchers were able to find additional details about who lived there and how and why they were wasting food. They found that food waste awareness, family, and convenience lifestyles can influence household food wasting behaviours.<sup>15</sup>

### Best Practices:

- Maintaining a positive relationship with municipal partners.
- Repeated auditing in order to compare changing results over time.
- Creating a time gap between when residents were notified of the study and when the audit was conducted meant that residents were unlikely to change their waste habits.
- Measuring the contents of garbage and recycling bins to look for contamination.

## THUNDER BAY INSTITUTIONAL FOOD WASTE AUDIT

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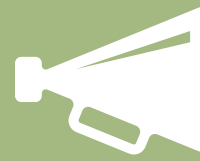
The goal of this [waste audit](#), conducted at the Pioneer Ridge Home for the Aged, was to learn how much food was wasted, what kind and why. Waste was measured by weight and identified over a five day period at each meal and each point of collection. Auditors found over 144 kg/day of food waste, with the largest portion coming from plate scrapings (44%) and the second largest from the service pans (28%). 31% of the waste were starches and 15% were meats and dairy.

### Best Practices:

- Dedicate the same individual(s) to supervising the pre-sorting of waste.
- Staff rotation should not disrupt the consistency of results.
- Separate wet foods from dry goods so as not to affect their weight.

The auditor's recommendations for reducing food waste:

- Re-use kitchen leftovers such as bread ends and stale loaves.
- Prepare fewer starch foods and reduce portion sizes as appropriate for residents.
- Survey residents to find their preference for menu items.



Educating residents about waste practices is crucial to a successful waste management program. Those who are more aware of their food waste footprint are likely to waste less.<sup>15</sup> Teaching residents food waste literacy - the importance of meal planning, efficient storage, using leftovers and best before dates - can reduce food waste enormously.

Adapted from EPA's [\*Food: Too Good To Waste Implementation Guide and Toolkit\*](#) based on community-based social marketing principles.

- **Remove or minimize barriers to behaviour change and emphasize benefits** by making it easier for consumers to measure their waste and to see opportunities to reduce waste and save money. Provide residents with scales to quantify the benefits of reducing waste.
- **Focus on target populations** by tailoring your strategies, messages or tools to particular groups.
- **Engage at the community level** - Behaviour change is influenced strongly by membership in communities or social networks. Create behavioural change by participating in neighbourhood associations, community groups and social networks.
- **Emphasize personal contact** - Campaigns that use personal contact to engage participation have greater success in recruiting and retaining participants.
- **Create feedback** by measuring the amount of food going to waste, making wasted food and lost money visible and tangible.
- **Make social norms visible** by publicizing participation rates which will give further momentum to the campaign.
- **Contextualize preferred behaviours** to motivate and sustain behavioural changes. Draw linkages between household practices and broader environmental and social issues through stories and other means.
- **Speak to community values** by adapting messages and tools to the needs of the community.
- **Leverage existing resources** by calling on the community to utilize existing networks and organizations. This encourages the engagement of community-based partners in campaign implementation.
- **Design for depth and breadth** - target behaviours that have a significant impact at the household level (depth) and engage a significant percentage of the general population (breadth).
- **Collect evidence for campaign design** to provide a solid evidence base to demonstrate the effectiveness of the proposed strategies and tools. This information will help in scaling up the small-scale campaign to a broad-scale campaign.

## BACKYARD COMPOSTING IN NOVA SCOTIA

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In rural areas, backyard composting is more efficient than instituting a centralized green bin pick-up since the increased costs of collection outweigh the costs promotion and education about backyard composting.<sup>16</sup> Community based social marketing has been shown to be effective in convincing residents to take up new backyard composting habits.



In [King and Annapolis County](#), Nova Scotia, officials successfully encouraged residents to compost in their backyards after the province banned organics from landfill. Instead of instituting an organics collection, the city distributed free compost bins as an incentive and used community based social marketing to promote backyard composting by leveraging the participation of those who already were composting (an impressive 56%) and asking them to place a decal on one of their curbside bins. The strategy made composting activity more visible and worked to modify local waste behaviour norms.

## YORK REGION'S GOOD FOOD PROGRAM

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[York Region's Good Food Program](#) was launched to reduce food waste and to promote healthy eating. Resident surveys revealed that health and the health of one's family was a bigger priority for individuals. The program's [messaging campaign](#) educates residents about nutritious and practical meal planning, food storage, best before dates, [food safety](#), eating leftovers and saving costs. The region also organizes [events](#) and contests to encourage healthy eating and food waste reduction.

## LOVE FOOD HATE WASTE

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This innovative [campaign](#) focuses on strategies for economic and environmental gains by reducing food waste and encouraging the valorization of good food. Mainstream communication efforts and online tip sharing encourage changes in consumer behaviour by providing examples of how households can benefit from food waste reduction. The campaign successfully reduced 21% of avoidable food waste over 5 years in the UK and saved consumers £13 billion.<sup>17</sup>



The successful campaign is a good example of how food waste reduction campaigns can be taken and modified from existing ones to fit local needs and circumstances. [Metro Vancouver](#) licenced and [imported](#) WRAP's campaign to Canada. Although local research showed that changes in the messaging strategy were unnecessary, the regional government has collaborated with local chefs and NGOs to adapt the program to the regional audience. For example, [Farm Folk City Folk](#), a not-for-profit society that works to cultivate a local sustainable food system, worked with Metro Vancouver to produce a [guide to storing food](#).



A reduction or diversion program should encompass a mix of policy measures as well as intense public awareness and educational campaigns. Programs should begin with a pilot project and ideally involve collaboration with other sectors such as community-based organizations.

## REGIONAL DISTRICT OF NANAIMO'S GREEN BIN PROGRAM

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Working towards a zero waste goal, the RDN launched a [full-scale green bin food and kitchen waste collection](#) in 2010 to divert organic waste going to landfill. Manual collection vehicles allow for close monitoring of contamination. Unlike many organics programs, RDN accepts only kitchen waste. Many residents quickly became aware of their food waste when they separated food from the rest of their waste.

### **Best Practices:**

Education through public events, zero waste newsletters, and outreach crew

### **Results:**

- The average household diverts almost 2.5 kg of food waste per week.
- In 2012, almost 6,100 tonnes of residential food waste was collected at the curb and sent to the composting facility.

## CITY OF THUNDER BAY FOOD STRATEGY

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The [City of Thunder Bay's](#) local food procurement strategy aims to reduce food waste in the city's institutions. Partnered with the [Thunder Bay and Area Food Strategy](#), the city aims to reduce costs by buying only what is necessary and reinvesting savings back into the purchase of local foods, bringing food scraps back to the farmer and sending less to landfill. Buying locally supports the region's farmers, and it encourages the closing of the waste loop and circular economy activity. This arrangement brings a "farm to table" value to meals, emphasizing the significance of locally grown food, which can encourage efficient preparation and enthusiasm among residents at mealtimes.

# NOVA SCOTIA'S LANDFILL BAN ON ORGANICS

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Through its [Environment Act](#) and its [Environmental Goals and Sustainable Prosperity Act](#), Nova Scotia banned organic waste in landfill and achieved a 50% diversion rate from 1989 levels.

## Best Practices:

- Recognition of solid waste as a resource
- Equitable and consistent enforcement of regulations
- Emphasis on public education and awareness: With help from external funders, the province provides regional and municipal education to constituents, as well as regional advertising campaigns and community sponsorship programs.
- Shared responsibility and stewardship: The province's [Strategy Renewal Advisory Committee](#) included representation from municipalities, provincial government departments, business, industry, and non-governmental organizations.
- Regional and municipal cooperation
- A combination of public policy, community engagement and collaboration

## Results:

- 94% of Nova Scotia's households have organics collection, and many practice backyard composting.
- Residential waste dropped by 40% and organics increased by 38%.
- Successful development of a locally-based recycling capacity for materials recovered from the waste stream, including 21 composting facilities for food waste



# TORONTO DISTRICT SCHOOL BOARD'S ECO SCHOOLS

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Food waste education in schools will help children form positive waste reduction and diversion habits and bring their lessons home. [Toronto District School Board's Eco Schools program](#) educates students about waste reduction and promotes student action in their school. Students are taught [systems thinking](#) and encouraged to conduct waste [audits](#). The program provides opportunities for students to build student leadership skills, share their findings with the rest of the school and raise awareness to help begin future waste minimization campaigns.

Did you know? Best before dates provide information about the freshness and potential shelf-life of a product and are not indicators of food safety. Expiration dates are necessary only on a few products such as infant formula and nutritional supplements.



Support or collaborate with your region's zero waste companies, organizations or charities that work to divert waste from landfill. Partnering with other groups can help strengthen local economies and build lasting relationships that will fuel future change.

## “NO WASTE. NO HUNGER.” AT SECOND HARVEST

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[Second Harvest](#) is the largest food rescue organization in Canada. The presence of excessive amounts of fresh food and increased awareness about wasted food has encouraged more partnerships with food providers across Canada. Since 1985, the organization has rescued and delivered over 100 million pounds of fresh, healthy food and prevented the release of 50 million pounds of greenhouse gas equivalents.

### Success factors:

- Mission focused: dedicated to recovering perishable food to supply 22,000 meals for people experiencing hunger in Toronto each day
- Best in class operational model in food recovery and distribution
- Education focused: [The Harvest Kitchens](#) program trains adults and youth with barriers to employment in food preparation, supplying prepared meals to Torontonians in need.
- Value collaboration and cultivating partnerships: working with food donors from source to retail, including farms, processing plants, manufacturers, distribution centres and large retail locations
- 12,000 volunteer hours every year.
- Support from food and financial donors

## “GREEN BINS GROWING” FROM WASTENOT FARMS

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[Wastenot Farms](#) offers their “Green Bins Growing” food waste pickup and recycling service to offices in the GTA. The eco-company provides a small-scale solution to waste in the workplace by bringing the leftovers to their vermicomposting farm. Their program helps offices to connect to the agricultural world and to participate in the circular economy initiative. The worms take a low value input and produce a high value output in the form of worm castings biofertilizer.

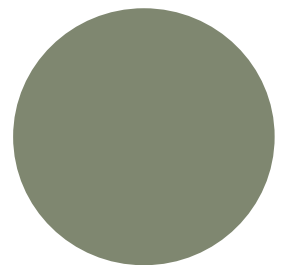
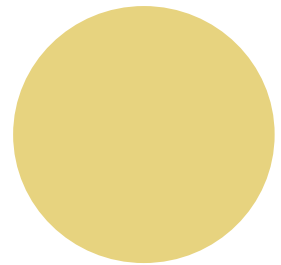
### Success factors:

- Reporting the diversion statistics to clients inspires them to the cause.
- Allows offices and companies to fulfill sustainability goals.
- High value of end-product allows for a smaller production site which is conducive to future expansion in urban areas.

- Work to standardize metrics for food waste audits across Ontario.
- Conduct further research about localized food waste practices in order to understand who wastes what, how much, and why.
- Develop [shareable resources](#) that include examples of best practices.
- Increase collaboration and communication across municipal and regional boundaries in order to share these resources and work towards large-scale solutions.
- Promote the adoption of policies and programs at the provincial level to encourage Ontario-wide food waste reduction and diversion.

[Let us know what you think!](#)

With your help we can continue creating helpful tools for improving Ontario's food systems.



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