Introduction

The National Zero Waste Council has developed a national, multi-year food waste reduction strategy.

The goal of the National Food Waste Reduction Strategy is to dramatically cut the amount of food waste disposed in landfills and, while doing so, provide major benefits for the Canadian economy, our environment and our communities.

To achieve its goal, the Strategy will:

- Promote innovation and investment in clean technologies;
- Build community resiliency by encouraging the redistribution of nutritious surplus food;
- Reduce the environmental impacts of producing and distributing food that ends up uneaten;
- Cut greenhouse gas emissions;
- Over time, lower garbage disposal costs for municipalities; and
- Engage Canadians in becoming part of the solution;

To be successful, the Strategy needs to find opportunities to prevent the generation of food waste along the full supply chain and to optimize the diversion of food waste from landfills. The amount of food waste is not insignificant. Value Chain Management International says a conservative estimate of the economic value of food waste in Canada is $31 billion annually. If the cost of other resources and energy wasted throughout the food chain in producing, processing, and distributing food is included, the cost spirals to more than $100,000 billion.

Food waste is an unnecessary cost for Canadian families, local governments and businesses, and it also contributes to greenhouse gases causing climate change.

The approach is to develop a collaborative plan with businesses, governments, and NGOs that builds on momentum being generated by others working on food waste in Canada and engages consumers in supportive actions.

The Strategy is built on three pillars

1. POLICY CHANGE
2. INNOVATION
3. BEHAVIOUR CHANGE

Canada’s National Zero Waste Council is a cross-sector leadership initiative focusing on waste reduction and emerging circular economies, which consume fewer resources and foster environmental sustainability. Founded by Metro Vancouver in collaboration with the Federation of Canadian Municipalities in 2013, the Council has brought together Canada’s largest metropolitan regions with key business and government leaders, academia and non-profit organizations.
1. Policy Change

Managing waste has historically been a responsibility of local governments. So important policy initiatives to reduce food waste, such as organics disposal bans, have originated at the municipal and regional level. However, the fiscal constraints and limited mandates of local governments mean that, acting alone, they cannot achieve the scale of food waste reductions required. Other orders of government must be involved with policies that shift Canada toward a more resource efficient food system.

The National Zero Waste Council has identified four areas for policy development.

1.1 Establish a national food waste reduction target

A national target will provide a common, measurable objective to drive actions by all levels of governments, businesses, NGOs and consumers. A national target of 50% food waste reduction by 2030 would align with the US target, elevate the awareness of the issue, demonstrate the commitment to act, and serve as a rallying point for public and private sector strategies and initiatives.

The National Zero Waste Council will be using its relationships across governments, businesses and NGOs to support a national dialogue on the importance of a target and how to best deliver on it across the food chain.

1.2 Stimulate increased donations of food to charities through a tax incentive

Ensuring that nutritious food is diverted from landfills to food banks and other charities has been successful in many countries, including the US and Britain.

Most businesses that have unsold or surplus foods need an incentive to donate because they incur additional costs associated with sorting, storage, and transport of donated food. A tax incentive that allows businesses to offset some of these additional expenses could increase the volume of foods diverted from composting facilities or the landfill, and redirect it to programs and organizations that increase community resiliency. To provide the desired social benefits, tax receipts would be issued only for the donation of safe and nutritious food.

The National Zero Waste Council will communicate and support champions, donors and receiving agencies with co-developed materials, and work with charities and community organizations to identify and mitigate the barriers to receiving and distributing nutritious surplus foods.
1.3 Reduce confusion over “best before”, “use by”, “sell by” and “expiry” dates

Greater clarity on “best before” and food expiry dates would reduce consumer confusion that leads to unnecessary disposal of edible and safe food. The Canadian Food and Inspection Agency (CFIA) is consulting on new labelling policies that protect consumer health while limiting food waste. Given the global market for food, the CFIA needs to ensure policy changes align with those proposed in the US Food Date Labelling Act, similar legislation in the EU, and the voluntary agreement between the US Food Marketing Institute and the Grocery Manufacturers Association to simplify labelling in the US.

1.4 Implement local organics disposal bans

Several Canadian cities and regions already ban organic materials from landfills, and the Province of Quebec is considering implementing a ban by 2020. These bans dramatically reduce food disposed in landfills while stimulating the growth of new businesses and technologies that turn food scraps into compost, bioenergy and high-quality animal feed.

Composting facilities can potentially reduce the costs of waste disposal for local governments, institutions and businesses while creating valuable products. Compost is a useful soil amendment that can be used in growing food, restoring landscapes and building the absorption capacity of urban soils. Some composting facilities use technologies, such as anaerobic digestion, to turn organic material into clean energy and compost.

Encouraging the implementation of organics disposal bans across Canada will involve:

• Providing online information encouraging their introduction at both the local and provincial levels. This should include support for the creation of large-scale, industrial composting facilities and anaerobic digesters and their eligibility for federal funds;

• Facilitating the growth of markets for compost by recommending policy changes to provincial and local government bodies which have responsibilities for landscaping and site reclamation;

• Providing outreach and education to local governments and industry stakeholders on best practices in the design and implementation of organics bans and the recovery of nutrients and energy from food waste;

• Producing downloadable communications materials that have successfully encouraged the separation of food scraps from garbage for all community sectors, including schools, apartments, restaurants, other businesses and institutions, and residences; and

• Providing online recognition and support for food waste diversion to facilities producing animal feed.
2. Innovation

Reducing food waste throughout the supply chain – from processing to final waste diversion from landfill – presents a wide-range of opportunities in technology innovation, with potential job growth across the country. Research and investment in new technologies is already being led by Canadian start-ups, established businesses, and business associations who see food waste as a new business opportunity.

The National Zero Waste Council has identified three areas for innovation.

2.1 Stimulate innovation in technologies that reduce food waste

Canadian companies are quickly recognizing the business opportunities in developing new techniques to reduce food waste – from innovation in the processing and packaging sector to solutions that facilitate the trade or donation of food. Examples include:

- new technology that prolongs the shelf life of food;
- packaging solutions to avoid spoilage;
- food-sorting infrastructure that prevents spoilage or diverts bruised and damaged produce to alternative use;
- software apps that provide consumers with alerts on discounted food; and
- food broker networks that connect businesses with surplus foods to those interested in purchasing the food at discounted prices or receiving it as donations.

While these innovations are being driven by the private sector, the federal government can ensure this innovation is supported by eligibility categories in the Natural Sciences and Engineering Research Council and other industry and academic partnerships, as well as by other initiatives under the direction of the Ministry of Innovation, Science and Economic Development and Agriculture and Agri-food Canada.

The National Zero Waste Council will work with its members and supporters to host knowledge-transfer sessions that identify opportunities for new markets and re-sell opportunities, as well as innovative processing options for food off-cuts and imperfect produce. The Council will host roundtables with industry and industry associations such as Provision Coalition, along with local government representatives.

2.2 Support new technologies to recover energy and compost from organics

Landfill bans directing food waste from garbage to composting and bioenergy facilities are an important policy tool to reduce food waste and greenhouse gas emissions. However, these facilities are capital intensive, and could be beyond the reach of many municipalities. Continued federal support for the construction and operation of composting and anaerobic digestion (biofuel) facilities is needed. The Federation of Canadian Municipalities’ Green Municipal Fund provides financial support for local governments interested in building public composting facilities. This needs to continue.

Other opportunities include working with industry organizations, like the Solid Waste Association of North America and the Compost Council of Canada, academic institutions such as the University of British Columbia and the Environmental Research and Education Foundation (EREF) in Ontario, to undertake applied research in new technologies for recovering materials and energy from organics. The Council will encourage the federal government to invest in research and development, and to facilitate partnerships around clean technology innovation that targets food waste as a clean energy source.
2.3 Encourage infrastructure investments to strengthen capacity of charitable sector

Community infrastructure helps facilitate food rescue and recovery but, in many cases, a lack of cold storage and transportation prevents charities from receiving and distributing fresh nutritious foods to their clients and communities.

To address these barriers, opportunities for receiving agencies to strengthen their capacity to distribute perishable food need to be identified. This could involve improved communications systems or the acquisition of transportation and cold-storage facilities that ensure the timely and efficient acceptance of surplus food.

Virtual networking systems can help facilitate the connections required to ensure perishable foods can be effectively delivered to agencies and that special dietary needs can be addressed – such as linking Muslim communities with available halal foods.

The Council will advocate that the federal government provide private and community sector access to national infrastructure funds that would assist in the design and development of cutting edge, cold-chain storage to enhance food redistribution.
3. Behaviour Change

Changes in behavior and best practices throughout the supply change, amongst businesses and consumers, will be required. With nearly half of food waste created at the consumer level, significant reductions in waste will require, in particular, small but deliberate changes in the everyday life of Canadians.

To achieve food waste reduction results, there is a need for:

• Consumers to embrace new food purchasing, preparation, and storage habits to reduce the amount of food that is bought but never eaten;

• Consumers and businesses to separate food scraps from other garbage to ensure new investments in composting and bioenergy plants are successful;

• Businesses to develop best practices with respect to charitable giving to ensure that more nutritious foods are transferred to community organizations.

The National Zero Waste Council has identified three areas for behavior change.

3.1 Develop a national food waste reduction consumer campaign

Consumers are responsible for 47% of the food waste generated in Canada according to Value Chain Management International, and must be engaged in a successful effort to reduce food waste.

Efforts to change consumer behaviour have been conducted in the US, the UK and Canada. In each case, they identify that the main causes of food waste in homes are purchasing more food than can be used, confusion over “expiry” and “best before” labels, preparing and serving portions that are too large, and inadequate storage practices for purchased and leftover foods.

To address these problems, communication campaigns have been developed to engage consumers in new habits that will reduce food waste. The most successful to date has been the Waste and Resources Action Program (WRAP) Love Food Hate Waste campaign in the UK. After the campaign launched in 2007, avoidable household food waste was cut by 21% over five years – saving UK consumers an estimated £13 billion.

Working with WRAP-UK, Metro Vancouver has implemented Love Food Hate Waste with local content. The National Zero Waste Council is working with stakeholders across Canada to launch a national Love Food Hate Waste campaign that would be available in both official languages. The campaign will provide activities designed to trigger new behaviours among consumers to reduce food waste while cutting their grocery bills. The Council will work through its local government partners, NGOs and food businesses to extend the reach and impact of the campaign.

3.2 Provide educational materials to encourage the separation of food scraps from garbage

Organics bans are a necessary and powerful tool to remove food from landfills and encourage the introduction of composting and bioenergy facilities. However, their success depends on individuals separating food scraps from garbage in their homes, businesses and institutions. When Metro Vancouver introduced its organics ban it accompanied the policy change with a broad advertising campaign to encourage the new behaviour.

To reduce confusion about how to recycle organic materials, Metro Vancouver also developed signage to encourage consistency across the region. Seeing similar signage - whether at work, school, or a common recycling room - helped people improve their recycling practices, resulting in increased recycling rates and reduced contamination.
The combination of public education and enforcement increased the total amount of organics recycled by more than 18% in the first year of the ban.

The National Zero Waste Council will support municipalities who are considering introducing organics bans by providing materials in a downloadable format where local governments, businesses or NGOs can insert their own branding.

### 3.3 Provide education and communication materials to support charitable giving of nutritious food

To best support policy changes encouraging the donations of food, health authorities need to provide guidance to donors and receiving agencies on the best types of food to give, how to keep food safe during the donation process, and clarify donors’ protection from liability risks, primarily through provincially designed Good Samaritan Acts.

The BC Centre for Disease Control has produced donation guidelines that have been welcomed by both business and the charitable sector. However, each province has a unique policy regime governing food safety and donor protection, so they all need to produce similar guidelines.

The Council is pursuing collaboration with health authorities in Ontario, Quebec, and other provinces to create provincially specific donation guidelines. The Council will also provide education information and broker new relationships between businesses and communities on what is best to donate, risk liability, and potential receiving agencies in local jurisdictions.