

July 31, 2017

Hon. Chris Ballard  
Minister of the Environment and Climate Change  
Ferguson Block, 11<sup>th</sup> Floor  
77 Wellesley St W  
Toronto, ON M7A 2T5

**Re: Discussion Paper - Addressing Food and Organic Waste in Ontario**

Dear Minister Ballard,

Dietitians of Canada (DC), the Ontario Society of Nutrition Professionals in Public Health (OSNPPH), the Ontario Public Health Association (OPHA), which houses the Nutrition Resource Centre, and the PROOF Team would like to commend the Ministry of the Environment and Climate Change for your commitment to reduce climate change through recent actions, including the release of *Ontario's Strategy for a Waste-Free Ontario*—and subsequent engagement efforts. We are pleased to have the opportunity to provide input into the Food and Organic Waste Framework vis-à-vis this submission, which represents a joint response from our four organizations.

Our long-standing organizations represent well over 5,000 Registered Dietitians and public health professionals working in health promotion across Ontario that provide extensive expertise, evidence and practice-based knowledge and experience to support nutrition-related healthy public policies. In addition, as an interdisciplinary policy research team at the University of Toronto that works to identify effective policy interventions to reduce household food insecurity, PROOF is an established credible body that works to carry out research and advice on national and provincial food security issues and interventions.

**We share a fundamental concern about assertions that relate the prevention or reduction of food waste with having an impact on household food insecurity.** Food insecurity, a serious social and public health problem, is an income-based rather than food-based problem and therefore, cannot be solved by food-based interventions. The Discussion Paper conflates effective responses to the problem of food insecurity with food waste diversion through directing rescued food to food banks. Food charity and waste reduction/diversion initiatives are incapable of addressing food insecurity. The most effective way to address the root cause of food insecurity in Ontario—poverty—is through systemic policies that ensure sufficient and consistent income for all households.

We agree that in order for the Government of Ontario to meet its Zero Waste Ontario goal and to achieve a circular economy, Ontario's Food and Organic Waste Framework **must prioritize a comprehensive range of strategies that target the prevention of wasted food—at its source points—across both industry and residential sectors.** It is critical to prioritize prevention strategies, over downstream food waste management approaches. The framework must apply economic and policy tools consistent with prioritization of prevention of wasted food. Key to the prevention of food waste would be to support the

development of a broad range of food literacy attributes, targeted social marketing and educational campaigns/activities.

The Ministry would benefit from **recruiting key partners that represent various sectors for its multi-stakeholder working group** including, the Ontario Food Collaborative, Ontario Public Health Association’s Nutrition Resource Centre & Environmental Health Working Group, Ontario Society of Nutrition Professionals in Public Health, Dietitians of Canada & EatRight Ontario, the Canadian Food Inspection Agency, policy analysts, economists, public health inspectors and environmental health specialists, etc. This will support the development and implementation of Ontario’s Food and Organic Waste Framework by ensuring evidence-based and targeted economic and policy measures, social marketing and educational campaigns, and consumer food literacy development.

We strongly support the Government of Ontario’s consideration for a legislative ban of food waste as an upstream lever to correct the environmental impacts and financial costs to the public of industry sector food waste. Other actions to minimize the quantity of food that is discarded include strong disincentives like disposal fees, and fines to the value of carbon footprint equivalency for resource inputs (e.g., growing, packing, transportation of the wasted food). When surplus is donated for recovery, there should be no incentive or reward for such activity, since this practice will essentially reward and encourage further wastage.

We urge your ministry to consider its role in a system-level approach to addressing food and organic waste in Ontario by ensuring that strategies are upstream and effectual. We appreciate this opportunity to convey the collective expertise of our members and are hopeful that our recommendations will encourage a collaborative approach. Please find attached an **Appendix** with our detailed, evidence-based recommendations.

We would like to request a meeting to further discuss our recommendations, and the roles that our organizations can play in supporting the implementation, education and evaluation of the Food and Organic Waste Framework.

Sincerely,



Pegeen Walsh  
Executive Director  
OPHA



Candice Einstoss  
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*Created in 1949, the [Ontario Public Health Association](#) (OPHA) is a non-partisan, non-profit organization that brings together a broad spectrum of groups and individuals concerned about people’s health. OPHA’s members come from various backgrounds and sectors—from the various disciplines in public health, health care, academic, non-profit to the private sector. They are united by OPHA’s mission of providing leadership on issues affecting the public’s health and strengthening the impact of people active in public and community health throughout Ontario. This mission is achieved through professional development, information and analysis on issues affecting community and public health, access to multidisciplinary networks, advocacy on health public policy and the provision of expertise and consultation.*

*The [Ontario Society of Nutrition Professionals in Public Health](#) (OSNPPH) is the independent and official voice of Registered Dietitians working in Ontario’s public health system. OSNPPH provides leadership in public health nutrition by promoting and supporting member collaboration to improve the health of Ontario residents.*

[Dietitians of Canada](#) (DC) is the professional association representing 6,000 members at the local, provincial and national levels with regional offices in British Columbia, Alberta and the Territories, Saskatchewan and Manitoba, Ontario, Quebec and Atlantic Canada. Our purpose is to advance health through food and nutrition. We provide evidence-based food and nutrition information; support easier access to adequate, safe and healthy food; promote professional best practices; and advocate for better access to dietitians to meet the health needs of Canadians.

Funded by CIHR, [PROOF](#) represents an interdisciplinary policy research team located at University of Toronto-Nutritional Sciences, Faculty of Medicine, that work to identify effective policy interventions to reduce household food insecurity.

## **Appendix: Recommendations for the Ministry of Environment and Climate Change's *Discussion Paper: Addressing Food and Organic Waste in Ontario***

[Dietitians of Canada](#) (DC), the [Ontario Society of Nutrition Professionals in Public Health](#) (OSNPPH) and the [Ontario Public Health Association](#) (OPHA), and [PROOF, Food Insecurity Policy Research](#), who will hereafter be referred to as “we”, are pleased to have the opportunity to provide collective input to the Food and Organic Waste Framework under the Ministry of the Environment and Climate Change (MOECC).

Dietitians of Canada represents the national voice of Registered Dietitians, OSNPPH is the independent voice of Registered Dietitians Registered Dietitians working in Ontario's public health system, OPHA represents the voice of public health professionals from various disciplines working in public and health promotion throughout Ontario and is also the host of the Nutrition Resource Centre, and PROOF an interdisciplinary research team through the university of Toronto investigating household food insecurity. Together we provide extensive food and nutrition expertise, evidence and practice-based knowledge and experience to support public health and nutrition-related, healthy public policy and, as such, have collectively aligned our input towards the development of a Food and Organic Waste Framework.

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We have provided a series of recommendations specifically related to the questions posed for public consultation in the Ministry of Environment and Climate Change's [Discussion Paper: Addressing Food and Organic Waste in Ontario](#). A summary of these recommendations is listed immediately below.

We have provided four main, overarching recommendations; ***the first recommendation is of highest priority to this collaborative*** based on our greatest concern and collective, expert opinion. As the recommendations provided are high-level, with regard to the soon-to-be developed Framework for a Food and Waste Strategy, we have included additional “supplementary recommendations” or recommendations that will support the overarching four recommendations. Throughout this document, we have provided evidence-supported rationale immediately following each recommendation made by the collaborative.

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# Recommendations Summary

## Priority Recommendation:

*Differentiate strategies to prevent or reduce food waste from those needed to address problems of household food insecurity in Ontario.*

### Supporting Priority Recommendation:

*Stimulate wasted food end-markets that support economies, ensure food safety, and maintain dignity of recipients and consumers of rescued food.*

## 1.0 Recommendation

Prioritize strategies that target the prevention of “wasted food”, at the source point, over downstream “food waste” management approaches.

### 1.1 Supporting Recommendation

*Provide greater clarity between upstream approaches that prevent “wasted food” at the source point, and downstream waste management approaches that rescue, reduce or divert “food waste.”*

### 1.2 Supporting Recommendation

*Apply economic and policy tools consistent with prioritization of prevention of wasted food over food waste management solutions.*

### 1.3 Supporting Recommendation

*Support the development of a broad range of food literacy attributes and employ targeted, social marketing as key strategies to shift public attitudes and change behaviours to prevent wasted food from the residential sector.*

## 2.0 Recommendation

*Engage key partners and experts to participate in the multi-stakeholder working group of experts to support the development of Ontario’s Food and Organic Waste Framework and in development of evidence-based, targeted social marketing and educational campaigns/activities.*

### 3.0 Recommendation

*Use policy and economic instruments effectively to correct food sector market failures, such that the industry sector/market system be accountable financially and environmentally for the food waste it generates.*

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#### Priority Recommendation:

*Differentiate strategies to prevent or reduce food waste from those needed to address problems of household food insecurity in Ontario.*

Feeding people is close to the top priority (second only to prevention) for consideration in the “food waste hierarchy” (p.18) in the MOECC’s discussion paper [Addressing Food and Organic Waste in Ontario](#).<sup>1</sup> The Ontario Ministry of the Environment and Climate Change asserts that initiatives involving the collection and donation of surplus food to local food banks and other food charities both reduce food waste and increase food security among Canadians in need (p. 10).<sup>1</sup> The discussion paper further conflates food waste diversion efforts and food security by referring to the development of Ontario First Food Security Strategy.<sup>1</sup> Regarding evidence-based for a strategy to adequately address the problem of food insecurity in Ontario, we strongly recommend the MOECC refer to the multiple submissions to Ontario’s First Food Security Strategy provided by members of this collaborative ([OPHA](#), [OSNPPH](#), [DC](#) and see [PROOF’s website](#)) for evidence-based information about the problem of food insecurity and effective policy responses to address food insecurity.

Implicit in proposals to direct edible waste to food banks and other food charities, such as this one, but also in other prominent campaigns like the [National Zero Waste Council’s](#), is the idea that food waste can be used effectively to address problems of hunger and food insecurity in our country, and that measures are required to promote the donation of edible food waste by the private sector to food banks and other community organizations. Both claims are seriously misguided.

While corporate food waste unquestionably should be reduced and prevented, expanding the donation of unsaleable products to food banks and other charitable food programs will not prevent food from being wasted and will do little to reduce waste, the bulk of which is generated at the household-level. **Furthermore, food waste cannot address the large and growing problem of household food insecurity in our communities.**

Household food insecurity refers to inadequate or insecure access to food due to financial constraints.<sup>2</sup> A household that is food-insecure is struggling to put meals on the table because there isn’t enough money. More than four-million Canadians live in food-insecure households.<sup>2</sup> The prevalence of household food insecurity in Ontario was 11.9% in 2014,<sup>3</sup> representing nearly 600,000 households and more than 1.5 million people. Food insecurity erodes people’s health, setting the stage for them to

develop a host of mental and physical health problems.<sup>4-6</sup> Food insecure individuals are less able to manage chronic health conditions<sup>7-8</sup> and PROOF's research has shown that over the course of a year, Ontario adults in severely food-insecure households consume 2.5 times the health-care dollars of those who are food-secure.<sup>9</sup> It is a public health problem that requires immediate government attention.

In the discussion paper, the primary end-market suggested for wasted food or "food rescue" is charitable food redistribution organizations, which are dependent on food donations to redistribute free food to individuals and families experiencing household food insecurity.<sup>1</sup> Throughout the discussion paper, examples of such organizations are provided, including food banks, meal centres and shelters (page 10, 18, 20).<sup>1</sup> It is asserted by the MOECC that supporting a charitable food distribution system through food rescue is a key strategy to feed people and "improve food security."<sup>1</sup>

**Food banks, the chief mode of food charity in Canada and the target of waste reduction initiatives are incapable of addressing the problems of food insecurity in our country.** Research consistently shows that only about one-quarter of food insecure households use food banks; most do not,<sup>4,10-12</sup> and those who do are not rendered food-secure by the experience.<sup>10</sup> Food bank use neither decreases the probability of a household being food insecure, nor lowers the severity of a household's food insecurity. While the receipt of charitable food assistance must diminish hunger in the short term, this is a far cry from rendering someone food secure. That would mean they were secure in their ability to meet their food needs independently going forward. Getting a free meal or bag of food isn't enough to achieve this state. This holds true for the food assistance provided through charitable meal and snack programs as well.

Food banks lack the capacity to meet even the short-term needs of those who seek their assistance. They are ad hoc, extra-governmental, voluntary organizations. Their operations are completely dependent on donations (of cash or food), so what they have to give out is quite simply what they were given. It is routine for food banks to restrict the amount and frequency of food assistance given to any one household and to report having to cut back on the amount of food they distribute to people because demand exceeds supply.<sup>13-15</sup> The help food banks provide is nowhere near enough to change households' abilities to meet their basic needs.

However, supply is only one of the constraints agencies offering charitable food assistance face. Most are also limited by the lack of funding and limited staff resources.<sup>14</sup> Food banks and other charitable food programs are heavily dependent of volunteer labour;<sup>14</sup> volunteers are responsible for receiving, sorting, parceling, storing and distributing food. Further, most food banks (78%) operate only one to two days each week,<sup>14</sup> and many are reliant on donated space. Research shows that most food banks are operating at full capacity, doing what they can, to provide as much safe food as they can to their clients.<sup>14</sup> Channeling more surplus food would further tax an already fragile system.

Safety is a fundamental issue identified in the Ministry's paper. Managing food safety is a key operational concern of food banks currently. The existing "Good Samaritan" legislation frees food industry to donate products that do not comply with the standards applied to food retail and food service operations, absolving them of liability for the health and safety of food donated to food banks. Operating outside of this normative legislation means that individual food banks have had to develop and institute practices to deliver safe food to their clients and quite literally get their hands "dirty" going through donated foodstuffs to discard inedible waste and sort the remaining food into stages of freshness so that food may be stored and distributed appropriately. It also means that charitable food assistance programs bear the costs of disposing of donated foodstuffs that cannot be distributed.

Increasing the volume of surplus food donations which are exempt from the usual food safety standards will increase the burden on voluntary organizations to manage this food supply, heightening the need for well trained volunteers to separate edible from inedible food, increasing the volume of food waste that these agencies must dispose of, and potentially posing an increased food safety risk to food bank users.

Food insecurity is not a food-based problem and thus cannot be solved by food-based interventions. It is a problem of material deprivation. **The most to effective way to address the root cause of food insecurity in Ontario and Canada is through systemic policy responses that ensure sufficient and consistent income for all household.**

### **Supporting Priority Recommendation:**

***Stimulate wasted food end-markets that support economies, ensure food safety, and maintain dignity of recipients and consumers of rescued food.***

We are pleased to see the MOECC has recognized the need to support the development of viable end-markets for food and organic waste to be recovered and reintegrated back into the economy (page 27).<sup>1</sup> However, it is concerning that end-markets are being discussed only in relation to food waste (e.g., recycling food waste for anaerobic digestion) and not wasted food, particularly given the emphasis of “food rescue” in the discussion paper.

While we are deeply concerned with food banks being the target of waste reduction initiatives, we recognize that there are already instruments in place, such as the Taxation Act, 2007, that support food rescue in Ontario. **We urge the Government to stimulate and support end-markets for food diversion products that ensure food safety and maintain the dignity of consumers of redistributed/rescued foods, whilst also contributing to local economies.**

Internationally there are many examples of alternative end-markets for food waste recovery initiatives, where surplus foods that are near or at their “best-before” and “expiry” date are liquidated at or below market value for quick sale to the public. These alternative markets, such as [WeFood market](#) in Copenhagen, use positive approach to reduce food waste that both increases community food access to low-cost foods and contributes to local economies and/or public support systems (e.g., in some countries revenues from the market are donated to charities). [The Real Junk Food Project](#), similarly, is an alternative food market stocked with rescued, edible food waste where consumers can “pay as you feel” so that consumers of varied economic status can participate in the market system to procure food in a dignified way.

## 1.0 Recommendation

***Prioritize strategies that target the prevention of “wasted food”, at the source point, over downstream “food waste” management approaches.***

The Government of Ontario’s has made a crucial commitment to reduce climate change through [Ontario’s Strategy for a Waste-Free Ontario](#) and its framework to achieve Ontario’s vision for a circular economy.<sup>19</sup> We commend your Ministry on setting a *Zero Waste Ontario* goal as part of this strategy.<sup>19</sup> Though there is urgent need to reduce current amounts of food waste that end-up in waste stream and necessitate waste management solutions, prevention of food waste is the preferred upstream approach having the environmental greatest impact. Therefore, it is astute that the focus of the Zero Waste Ontario goal is an enlightened approach emphasizing the prevention of waste rather than reliance on traditional end-of-life waste management solutions.<sup>19</sup>

Continuing momentum, we feel the content and components of the discussion paper, [Addressing Food and Organic Waste](#), and soon-to-be-developed Framework reflect the necessary strategies to achieve Waste-Free Ontario’s goals, objectives and actions.<sup>1,19</sup> To realize the Government of Ontario’s Zero Waste Ontario Goal, we strongly recommend Ontario’s Food and Organic Waste Framework prioritize and implement strategies that target the prevention of food that is being wasted or discarded, at the source point, in both the industry and residential sectors.<sup>19</sup> In addition, when surplus or excess food is available throughout the value chain, any diversion away from landfill must be considered in terms of realistic distribution and capacity.

### 1.1 Supporting Recommendation

***Provide greater clarity between upstream approaches that prevent “wasted food” at the source point, and downstream waste management approaches that rescue, reduce or divert “food waste.”***

While the MOECC discussion paper provides a “Food Waste Hierarchy”, which clearly identifies the **prevention of food waste as a top priority situated above food waste diversion and/or food recovery** strategies.<sup>1</sup> There must be greater clarity in the MOECC’s discussion paper between approaches that aim to prevent **wasted food** (e.g., excess, surplus food, edible food) vs. those that reduce/divert **food waste** (*inedible by-products*). To improve clarity, we propose the following definitions:

- **Wasted food** – Food waste, food and/or ingredients that are discarded by the industry or residential sectors, that is preventable or avoidable (e.g., overproduction of food with poor flow of products through chain, excess or surplus of retail food exceeding consumer demand, food that has expired, food that was prepped to eat and then thrown away).<sup>20-22</sup> Much of which could have been eaten by humans or animals if it was made accessible (e.g., discounted for liquidation at grocery stores prior to expiry). Surplus food, as defined by the MOECC, is also considered “wasted food.”

- **Food waste** – Food waste that is inedible or unavoidable and is generated as a by-product through the preparation or consumption of food and drink. (e.g., egg shells, banana peels, meat bones, coffee grounds).<sup>20-22</sup>

This distinction between wasted food and food waste is paramount as wasted food can be prevented and consumed, not requiring waste management or disposal in landfills and thus having the greatest impact on climate change.

While the Food Waste Hierarchy clearly identifies prevention of wasted food as the top priority for this Framework, it is ironic that in the discussion paper, the main strategy described under *A: Prevention of Food Waste* is food rescue, which is a downstream approach to reduce/divert wasted food (edible food that can be fed to animals or people) and is not a strategy to prevent the generation of wasted food at source point, in either sectors.<sup>1</sup>

Clarification is needed to reinforce that food rescue/resource recovery approaches to deal with wasted food should not be grouped with or prioritized over strategies to prevent wasted food from either the industry or residential sectors. These are *different approaches* that require *different strategies*.

## **1.2 Supporting Recommendation**

***Apply economic and policy tools consistent with prioritization of prevention of wasted food over food waste management solutions.***

The differentiation between the two approaches with prioritization of prevention also must translate into implementation. While similar policies and economic tools could be used for prevention and reduction/diversion (e.g., legislation, taxes/tax rebates, subsidies, fines), the application of tools must be conducted in accord with strategy priorities. Targeting prevention of wasted food an outcome is very different than targeting the reduction of food waste or diversion from landfills, when preventable food waste has already been discarded or entered the waste stream.

To achieve Ontario's Zero Waste goal, effective strategies must be in place to minimize the quantity food that is discarded—including strong disincentives like disposal fees, including incremental fees if the waste is bulky and/or more difficult to dispose of or treat—and fines for the value of carbon footprint equivalency for inputs up to this point (e.g., growing, packing, transportation of the wasted food).

Food recovery approaches can be implemented to rescue edible food (e.g., to feed people or animals) or to reuse or recycle non-edible organic food (e.g., for industrial energy sources or composting agricultural use) in accordance with a circular economy model. However, when surplus is donated for recovery, there should be no incentive or reward for such activity, since this practice will essentially reward and encourage further wastage. We note special exception in Ontario, whereby farmers can donate perishable food surplus and receive a tax credit towards their loss of product (i.e., Taxation Act, 2007).

Policy tools to “prevent food waste” are provided in Table 2 (page 19).<sup>1</sup> Here, distinction between the application of policy tools to prevent wasted food and application of policy tools to reduce/divert food waste is needed. Yet, the table groups two distinct approaches as the same. For example, education approaches can prevent food from being wasted at the household level, whereas, the *donor protection* approach actually encourages industry to waste edible food by supporting redistribution channels for surplus food, rather than discouraging industry from wasting edible food throughout the supply chain.

Likewise, in table 2 (page 19),<sup>1</sup> the description of *incentives*, as a policy tool, groups the two distinct approaches together, incentives that encourage food waste prevention with incentives that support the reduction/diversion of wasted food from reaching landfills. However, in the description of incentives, only an example of a lower priority approach that supports food waste diversion is provided (i.e., redistribution of surplus or excess food) and this should not be emphasized over the prevention of wasted food. Incentives for waste diversion provide a financial award for donation of wasted food, thereby encouraging industry to waste food, rather than to discouraging wasted food.

While it is acknowledged that diversion from landfills is an important goal to be achieved over waste disposal, this should not be prioritized over prevention of waste food by industry or residential sector. *Disincentives* to discourage food waste, (e.g., policy/economic tools, such as fines and taxes for waste generation and disposal) are powerful, particularly with industry as it functions to generate financial profit, and must be included in the Framework.

### **1.3 Supporting Recommendation**

***Support the development of a broad range of food literacy attributes and employ targeted, social marketing as key strategies to shift public attitudes and change behaviours to prevent wasted food from the residential sector.***

In Canada’s supply chain, consumers are substantial generators of food waste, representing 47% of the total food wasted.<sup>1</sup> More startling, it is estimated that almost 50% of total food wastage occurs at the post-consumer stage, with 9-125 kg of edible food per person disposed annually in waste streams sent to landfills.<sup>20</sup> The public and residential sector is identified as a key sector to target in [Ontario’s Strategy for a Waste-Free Ontario](#), with specific reference to upstream prevention approaches, include raising awareness and educating the public to shift traditional views of food waste in order to move from a system of that manages waste to a system that emphasizes zero waste, zero greenhouse gases and achieving a circular economy.<sup>1,19</sup> From an economic perspective, not only do food waste prevention programs/strategies support the reduction of food costs for consumers, but research shows that household food waste prevention programs are cost-effective, showing a reduction in generated food waste and a return on investment for dollars spent on programming (see the business case for food waste prevention in [BC’s Residential Food Waste Prevention Toolkit](#)).<sup>20</sup>

At the household or residential level, research suggests there may be many factors contributing to the problem of wasted, edible food. For example, a recent Guelph study links multiple relationships

between the generation of household waste and household shopping practices, food preparation, waste management and a wide range of individuals' attitudes, beliefs and lifestyles.<sup>23</sup> Largely, household food waste occurs when too much food has been prepared, when food it is not consumed before it expires (or when individuals are not sure it is safe to eat), or when individuals lack of knowledge or confidence to use leftover food, etc.<sup>22</sup> Gaps in food literacy exist among Canadians related to date labelling (e.g., sell by", "use by", "best before", and "expiration") which contributes to food waste due to consumers concern around food safety.<sup>24</sup>

Health promotion strategies that raise awareness and educate the public, such as social marketing campaigns and food literacy activities, have proven to be effective to change public's behaviour around food waste.<sup>20-21</sup> Reflecting this, we are pleased to see that the discussion paper has included various food literacy and social marketing tools and approaches that target the public and various sectors across the supply chain to prevent the generation of wasted food at its source, before it reaches waste streams.<sup>1</sup> **We recommend the development of a broad range of food literacy attributes**, by means of a far reaching, targeted social marketing campaign, as a key strategy to increase knowledge, shift public attitudes and change consumer/household behaviours. This can improve consumers' meal planning and consumer behaviours and shift wasteful household food preparation behaviours.<sup>22</sup>

**To help minimize consumer confusion and misunderstanding around [date labelling](#) of retail foods**, we strongly recommend that the MOECC work with the Canadian Food Inspection Agency to address this gap in consumers' food literacy in public education campaigns to help prevent food wasted at the consumer and household levels. As additional labelling support would be the inclusion of a "freeze before" date to accompany "best before" dates.<sup>24</sup> To further support consumers regarding the need for information around food waste and food safety, we recommend a central support agency for consumers to obtain credible information related to food waste and food safety, such as Eat Right Ontario or the Nutrition Resource Centre.

Successful social marketing campaigns and food literacy programs, such as the United Kingdom's *Love Food Hate Waste* - which aims to prevent residential food waste through awareness, shifting attitudes, knowledge of actions to change behaviours to reduce household food waste - should be prioritized as an important upstream component of Ontario's Food and Organic Waste Framework. Broad public awareness and educational campaigns also have the potential to support prevention of food waste generated by the retail sector, for example, when consumer behaviours shift, purchasing less desirable foods more frequently to reduce unsold food that is typically wasted in supermarkets or grocery stores. Educational activities can also target industry to provide insights how marketing approaches can be altered to reduce food waste without financial impacts. For example, the Buy One Get One Free program in Tesco grocery stores (U.K.) permitted consumers to purchase both items at once (e.g., perishable strawberries) but retrieve the second within two weeks later thus reducing food waste occurring due to bulk purchases of perishable foods spoiling.

## 2.0 Recommendation

***Engage key partners and experts to participate in the multi-stakeholder working group of experts to support the development of Ontario's Food and Organic Waste Framework and in development of evidence-based, targeted social marketing and educational campaigns/activities.***

The issue of food waste is complex and multifaceted. To effectively address and prevent the environmental impacts associated with food waste, strong and coordinated leadership is required to meaningfully engage key partners and experts throughout the supply chain (from field to fork) and across the relevant sectors to develop and implement evidence-based, targeted and effective strategies.

The strategies considered for the soon-to-be developed Framework are crucial to effectively achieve the ambitious goals set forth under the Government of Ontario's Strategy for a Waste Free Ontario and to prevent unintended consequences of misaligned political and economic levers. As such, it is critical to include policy analysts and economists on the multi-stakeholder working group to develop the Framework to ensure levers are used effectively to achieve a circular economy.

The discussion paper references representatives from key groups to include when establishing the working group of multi-stakeholders to provide advice on the development of the Framework. We are pleased to see that members will represent the various players in the food sector, as although the root causes of food waste are generalizable, the specifics of food waste will vary throughout the supply chain.<sup>22</sup> It will also be important to include a variety public sector representatives and experts, particularly those with an understanding of the factors contributing to household and industry waste (e.g., non-profit and health promotion organization representatives, public health representatives etc.). For example, the [Ontario Food Collaborative](#) brings a wealth of both food waste and healthy eating expertise.

We are deeply concerned that public health appears to be missing from the provided list of potential members for the multi-stakeholder group. Specifically, Registered Dietitians, food security experts, public health inspectors and environmental health specialists are key stakeholders requisite to important discussions related healthy eating, food safety, food insecurity, waste management and climate change.

- For support regarding effective and best practices in food waste and food safety, healthy eating, social marketing and food literacy, we strongly recommended to consult and ensure the participation of the Ontario Food Collaborative, the Nutrition Resource Centre at Ontario Public Health Association (OPHA), the Ontario Society of Nutrition Professionals in Public Health (OSNPPH), Eat Right Ontario and Dietitians of Canada.
- For discussions related to food insecurity, we strongly recommend that the Ministry engages PROOF researchers, the OSNPPH's Food Security Workgroup and the Nutrition Resource Centre at OPHA.

- For environmental health and food safety aspects, Ontario Public Health Association's constituent societies and workgroups can support the development of the Framework (i.e., Association of Supervisors of Public Health Inspectors in Ontario, Canadian Institute of Public Health Inspectors, OPHA Environmental Health Workgroup).
- For effective economic and policy levers, include public health economists and policy analysts.

We have also noted that there needs to be a central and coordinated agency, such as Eat Right Ontario and the Nutrition Resource Centre, to provide support to consumers and the public around food waste and food safety.

### 3.0 Primary Recommendation

***Use policy and economic instruments effectively to correct food sector market failures, such that the industry sector/market system be accountable financially and environmentally for the food waste it generates.***

As previously stated, we are pleased to see in the MOECC's discussion paper, Addressing Food and Organic Waste, prevention of food that is wasted is clearly identified as a top priority in the "Food Waste Hierarchy" (page 18) situated above food rescue/diversion strategies.<sup>1</sup> As highlighted in the MOECC's discussion paper, an estimated 53% of food wasted in Canada is generated along the supply chain from production to distribution to retail, pointing to industry as a key sector to target for the prevention and reduction of food waste.<sup>1</sup>

Waste management is merely one consequence or cost of the food sector, with many other social, environmental and economic impacts (e.g., environmental degradation, climate change, ineffective use of scarce and finite natural resources and human labour, food insecurity).<sup>25-26</sup> While the global demand for food is rising, climate change threatens the environmental capacity to continue to produce food at its current rate.<sup>25</sup> Yet globally, an estimated one-third of all food produced for human consumption is wasted and, in Ontario, it was recently estimated that 60% of the annually generated food and organic waste was sent for disposal, contributing to methane and greenhouse gas production and climate change.<sup>1,27</sup>

From an economic perspective, many of the negative social, environmental and economic impacts associated with the food sector, can be considered negative externalities, as the costs of these are often incurred (in full or in part) by a party outside of the market system, such as the public sector.<sup>28</sup>

In Ontario, waste management is organized municipally or regionally, with budgets to support such activities.<sup>21</sup> This means that the full costs of waste management are not included in the total costs to produce, distribute and retail foods and not reflected in the market value of foods. Moreover, the environmental costs of disposal of industrial food waste, such as pollution and climate change associated with degradation of organic wastes in landfills, generates further externalities, pointing to multiple market failures in the food sector.<sup>29</sup>

Market failures warrant government intervention and use political and economic tools to correct market failures in the industry sector, such that externalities or the costs of productions are internalized and reflected in the market value of food produced. This requires the appropriate use of economic and policy tools to correct market failures in the food industry sector, discouraging industry from wasting food throughout the supply chain and ensuring financial accountability for environmental costs from production, packing, distribution and retailing. The inappropriate misuse of economic tools to address the environmental impacts of food waste as market failures, such as a food donor tax credit, not only costs the public sector in terms of economic losses to the provincial tax base but incentivizes industry to waste food and dump its surplus, rather than preventing wasted food from occurring along the supply chain. Further, it increases public sector costs to sustain a system and infrastructure to redistribute wasted food without correcting the market failure.

Economists argue that aims for environmental sustainability are at odds with market profitability in the food industry sector and, thus the only way to correct market failures, including industrial food waste and climate change, is to prevent it from occurring at the earliest possibly point throughout the supply chain.<sup>25,27</sup> This aligns with the MOECC's top priority in the "Food Waste Hierarchy"<sup>1</sup> to prevent food waste, at the source, and further recommends to use policy and economic instruments appropriately to correct market failures, such that the costs are absorbed by the market system rather than the public.<sup>1,28</sup> We strongly recommend the appropriate use of policy and economic tools to correct market failures, with the application of tools to target the prevention of wasted food over the reduction of food waste throughout the supply chain. In dealing with waste management at the municipal level, government could implement regulatory instruments (e.g., tax based on waste generated/carbon footprint, e.g, carbon tax) or market incentive policies to discourage the industrial sector from generating food waste.<sup>28</sup>

We view economic and policy tools as important measures for the government to direct upstream strategies to prevent food waste throughout out the supply chain and to achieve its Zero Waste Ontario goal to eliminate greenhouse gases from the waste sector.<sup>19</sup> We commend the Government for its bold legislation to support the Waste-Free Ontario Strategy. Specifically, the Resource and Recovery and Circular Economy Act, 2016, which establishes full producer responsibility by making producers environmentally and financially responsible for recovering resources and reducing waste associated with production and packaging.<sup>19</sup> Further, we strongly support the Government of Ontario's consideration for a legislative ban of food waste, as this would be a powerful lever, targeted at food waste prevention, to correct the environmental impacts of food waste as market failure and to, again, support the Government in reaching its strategic goals.<sup>1</sup>

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