

# Exploring the Feasibility of Zero Waste Approaches in Toronto's Event Industry

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Dedicated to those who wish to party sustainably.

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## **ii. ABSTRACT**

Events and festivals are integral to the City of Toronto’s culture as they bring various niche communities together, attract many tourists nationally and internationally, and are a source of income for businesses. Although all events are different, they all use a tremendous amount of resources and generate waste. As the world transitions quickly towards sustainable regulations and practices, the lack of educational opportunities that intersect between sustainability and event planning create an urgency for planners to receive the information needed to become successful in a fast-paced industry. Without proper guidance and knowledge, even the best intention event planners may miss the mark in terms of their sustainability targets, creating reputational risks for their organizations and skepticism of sustainability initiatives by event attendees. By applying a Zero Waste Framework, this research analyzes the challenges being experienced by various stakeholders through semi-structured interviews within the event industry to intervene at the highest level of the Zero Waste hierarchy – rethink and redesign. This research recommends a unique way to aggregate successful waste reducing strategies from different cities, organizations, and businesses in a feasible and low-cost way to maximize impact. The recommendations put forward aim to reduce barriers and increase benefits for planners to act toward sustainability and ultimately support Toronto’s TransformTO and Net Zero strategy.

### iii. ACRONYMS

**Bite-sized format:** refers to presenting information or content in small, easily digestible chunks or portions, typically no more than a few minutes in length.

**Circular Economy:** refers to an economic model that aims to minimize waste and promote resource efficiency by keeping materials in use and circulating in the economy, rather than being discarded.

**Digestors:** are facilities that use microorganisms to break down organic waste into biogas and fertilizer, often used for renewable energy production.

**Ecological Footprint:** refers to the amount of land and resources required to sustain human activities, including food, water, energy, and waste disposal.

**Embodied Energy:** refers to the total energy required to produce a product, from the extraction of raw materials to manufacturing, transportation, and disposal.

**Events:** refer to planned occurrences or gatherings for a specific purpose or occasion, such as conferences, concerts, exhibitions, or sporting events.

**Event Planner:** a professional who organizes and manages events on behalf of clients, taking care of logistics, budgets, and scheduling.

**Festivals:** are special events that celebrate a particular cultural or religious event, such as music festivals, food festivals and religious festivals.

**Global Hectare:** a unit of measurement used to calculate ecological footprints, representing one hectare of biologically productive land with the world average biological productivity for a given year.

**Greenhouse Gas Emissions:** are gases primarily carbon dioxide, methane, nitrous oxide, released into the atmosphere through human activities such as burning fossil fuels and deforestation, that contribute to global warming and climate change.

**Incinerators:** are facilities that burn waste at high temperatures, converting it into ash and gases, often used for waste disposal.

**Net Zero:** refers to the balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere, achieved by reducing emissions and increasing carbon sequestration.

**Post-consumptive Waste:** waste generated after the consumption of a product, such as packaging or food waste.

**Resiliency:** refers to the ability of a system or community to withstand and recover from shocks or disruptions, such as natural disasters, economic downturns, or social upheavals.

**Special Events:** are unique, one-time occurrences that require planning and management, such as weddings, birthdays, and anniversaries.

**Sustainable Development Goals:** a set of 17 goals adopted by the United Nations in 2015 to promote sustainable development worldwide, including goals such as eradicating poverty, promoting gender equality, and combating climate change.

**Waste Management Stakeholder:** an individual, organization or group that has an interest in or is affected by waste management practices, such as local governments, waste disposal companies, and environmental organizations.

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# LITERATURE REVIEW

## 1.1 INTRODUCTION

The event industry is one of the fastest growing forms of tourism, playing important roles in destination and community development. Although the COVID-19 pandemic has slowed its growth, there has been a boom in hybrid and virtual events, with many itching to return to normalcy (Howarth, 2022; Givner, 2022). Globally, the event industry was valued at \$1,135.4 billion in 2019 and is expected to reach \$1,552.9 billion by 2028, a compound annual growth rate of 11.2% from 2021 to 2028 (ResearchandMarkets.com, 2021). This shows that even amongst a pandemic, the event industry is projected to grow as it is a key contributor to a city's sustainability and a means to revitalize local economies.

Events bring in many social and economic benefits to its host community. Socially, they improve quality of life, strengthen community cohesion, build awareness of diverse cultures and identities, act as a source of community pride, improve awareness of a region as a travel/tourism destination, bring in new forms of knowledge and can be a source of cultural renewal (Government of Alberta, 2011; Gursoy et al., 2004). Economically, they aid in the creation of various job opportunities, bring in increased revenue to the host community, increase tourist length of stay thereby increasing expenditures, attract national and international tourists that would otherwise not visit (Government of Alberta, 2001; Gursoy et al., 2004; PKF Consulting, 2009). Moreover, events bring in environmental benefits namely funding in infrastructure re/development and the preservation of certain spaces due to popularity (Government of Alberta, 2001).

However, they are known to leave a dirty footprint through the consumption of energy, water, fuel, and the generation of waste, all of which contribute to climate change (eventIMPACTS, n.d). For example, in 2017, festivals held by Goldenvoice were estimated to produce 1,612 tons of solid waste over

15 days, 20% of which would have been recycled (Kennedy, 2017; Larasti, 2019). Broken down per day, Goldenvoice festivals which included Coachella, Stagecoach and Desert Trip, some of the largest festivals in the US produced an estimated 107 tons per day, equivalent to the weight of a fully loaded space shuttle (Kennedy, 2017; Weight of Stuff, 2022). A case study on Coachella Valley Music and Arts Festival calculated that vehicle transportation (not including air travel) amounted to 1,182 metric tons of CO<sub>2</sub>e, equivalent to 215 homes' electricity use for one year or 2,737 barrels of consumed oil (Larasti, 2019; Environmental Protection Agency, 2022). This is the reality of not just large festivals but all events in varying degrees that require a great number of resources to organize, host and disassemble. Sustainability requires that all environmental, social, and economic aspects are taken into consideration. To contribute to the sustainability of a city, events must be required to take responsibility for its environmental impacts or be left to deal with its negative externalities.

Figure 1

**A summary of the Effects of Events**

Economic	Social	Environmental
<ul style="list-style-type: none"> <li>● Creation of employment</li> <li>● Increase revenue to host community</li> <li>● Increase in expenditures</li> <li>● Attract national and internal tourists</li> </ul>	<ul style="list-style-type: none"> <li>● Improve quality of life</li> <li>● Strengthen community cohesion</li> <li>● Build awareness of diverse cultures and identities</li> <li>● Cultural renewal</li> <li>● Act as a source of community pride</li> <li>● Improve destination awareness</li> <li>● Bring in new forms of knowledge</li> <li>● Increase awareness of region as a travel/tourism destination</li> </ul>	<ul style="list-style-type: none"> <li>● Help in infrastructure re/development</li> <li>● Preservation of certain spaces</li> <li>● Energy consumption</li> <li>● Water consumption</li> <li>● Fuel consumption</li> <li>● Waste generation</li> </ul>

(eventIMPACTS, n.d; Government of Alberta, 2001; Gursoy et al., 2004; Marchini, 2013; Larasti, 2019; PKF Consulting, 2009).

As the event industry begins to recover and overcomes the challenges of the COVID-19 pandemic, it is now more than ever, important to focus on reducing the environmental impacts of

festivals and events. This research paper focuses on events and festivals (hereby referred to as events) within the City of Toronto and although environmentally conscious decisions need to be made throughout an event's entire operations, this paper will narrow the scope on event waste management due to the time constraint of this masters. As it will later be pointed out, event waste management has its own complexities but if done right can help the City of Toronto meet its sustainability goals, create awareness on the importance of waste management and provide opportunities to educate on the proper sorting of materials to reduce city waste contamination rates.

The purpose of this research paper is to put forward recommendations on perceived challenges in minimizing event waste based on event planners and stakeholder responses in Toronto. Event planners which may include private companies, community members, government and non-profit organizations have the greatest influence on the extent and success of a waste management plan because they have the ability to choose which items will be introduced into the waste stream and what materials it is made out of (StopWaste, 2007). This research uses a Zero Waste framework to maximize collaboration and encapsulates the aim to go as far as possible in reducing the environmental impact of waste.

The recommendations put forward will be drawn from successful organization and municipal initiatives from various countries; analyzed and adjusted to fit the requirements of Toronto's waste management practices and environment.

## **1.2 THE ISSUE**

There are an estimated 1,000 special events per year that rely on the City's Solid Waste Management company for disposal of their waste in Toronto's Green Lane Landfill and many others that rely on private landfills within Ontario (Synowiec, A., 2016).

Landfills are devastating for the environment as they produce toxic substances from the waste breakdown that leach into the soil and groundwater and become environmental hazards for years to come (Danthurebandara, M., et al., 2012). It also releases methane, a greenhouse gas that is 28 times more potent than carbon dioxide, that persists in the atmosphere for more than 100 years, contributing rapidly to global warming and climate change (E. Chalvatzaki et al., 2010; Government of Canada, 2023; H. Dandan et al., 2022).

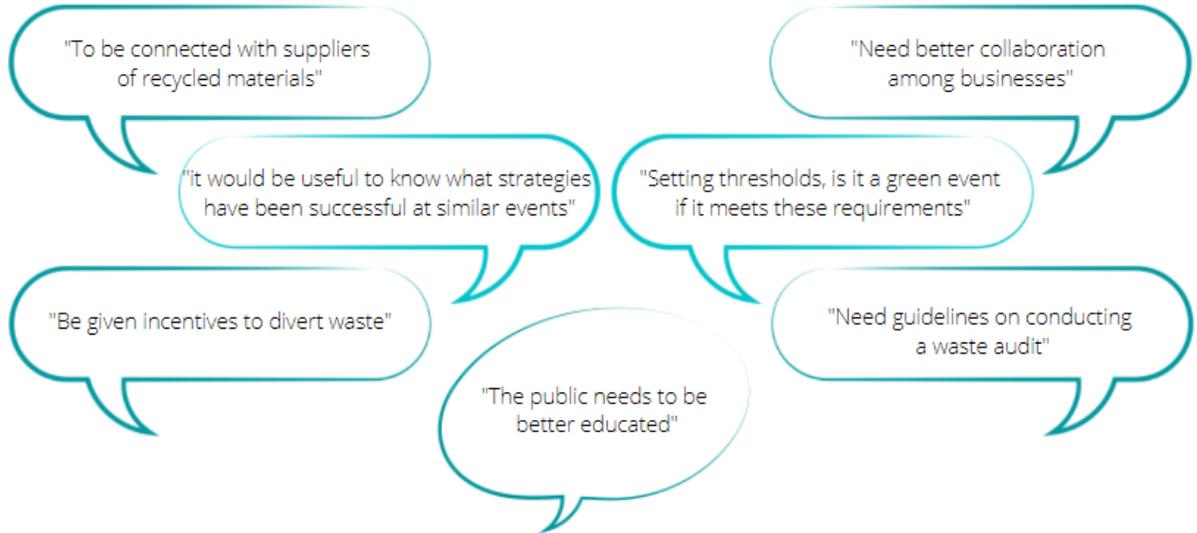
Waste destined for the landfill not only take up space on the land for decades, generate methane through decomposition but it also takes a significant amount of resources to transport; increasing the amount of greenhouse gases being released into the atmosphere (C40 Cities Climate Leadership Group & C40 knowledge Hub, 2019).

Toronto's Green Lane landfill capacity is expected to be exhausted in 2035, requiring new solutions, new infrastructure, and a whole lot of investments. Currently, Toronto has prioritized waste management strategies to extend the lifespan of the Green Lane landfill and increase the City's resiliency through its TransformTO and long-term waste management strategy (BudgetTO, 2019; City of Toronto, 2020a; City of Toronto, 2020b). However, a search on public released waste related documents neglect strategies and/or regulations for the event industry besides only a series of "recommendations" on event permit applications (Solid Waste Management Services, 2015; Waste Management Diversion for Special Events in Parks Application). These recommendations have shown through this research's interview process not to be enough to educate and empower planners to reduce their event waste.

Figure 2 shows some of the planners' responses. Many have outlined that to become more sustainable, they need more resources, help with education, better guidelines, and clearer information.

Figure 2

### Quotes from Event Planners



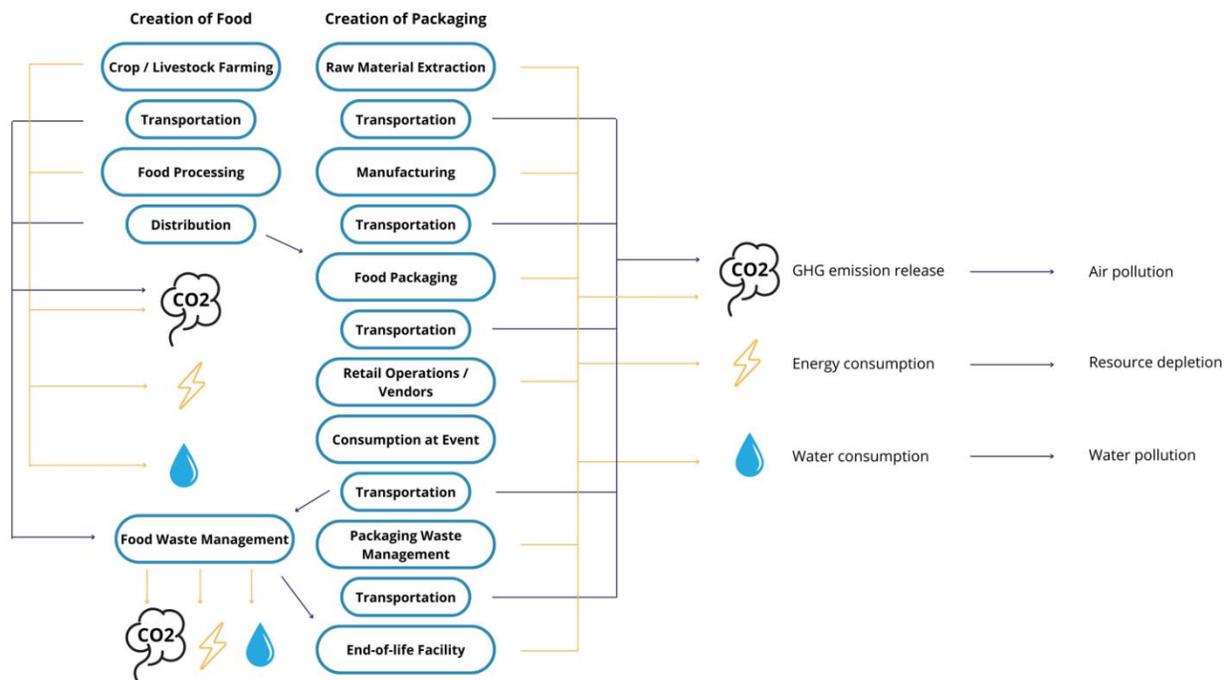
These responses show that there is a disconnect between the information that is widely available online and its practical application within Toronto's own waste management services. This is especially true when an organization contracts an event planner who lives outside of the host community. What they may be familiar with in terms of waste management practices may be entirely different from the host community and waste management research may not necessarily be a priority if the host community does not have strict regulations (Cobus, 2019; D. Gursoy et al., 2004, p. 172).

Events are wasteful by nature due to their high intensity short timeframe and the issue of waste goes beyond the physical commodity that is thrown out (Cobus, 2019). The consumption of a commodity generates waste in every point of its lifecycle even prior to the consumption or usage of the product by the consumer. The lack of understanding and awareness of the treatment of post-consumptive waste and the waste associated with the production of the product, continue to allow decisions that perpetuate the generation of waste (Jennifer Clapp, n.d). There is a significant amount of energy and water that is used

for the production, transportation and retailing of a product, along with significant amounts of emissions that are emitted (Gooch et al., 2010). In addition, the packaging of goods is ubiquitous and often problematic. Food packaging, for example, which is a common item found at events, serves many benefits such as informing on its contents, shelf life, storage conditions and the adherence of food safety standards. Associated to one product or one meal is an outstanding amount of energy, water, and emissions (See figure 3) and it is disheartening to see the event industry continuously subscribe to the issue of overconsumption and waste, year-over-year (Kan and Miller, 2022).

Figure 3

### Resource Consumption and Environmental Pollution for Production of Food



(Cooreman-Algored et al., 2022; Kan & Miller, 2022; Sun et al., 2021)

To build upon the complexity of waste, there are often social issues concerning the creation of goods commonly seen at events. Recent studies on the environmental impact of common products found

at events quantify not only the amount of embodied energy, GHG emissions and water consumption used for the creation of one product but also the release of chemicals leading to eutrophication, release of particulate matter affecting local air quality, water depletion, land occupation, and ozone depletion where the products are manufactured (Sun et al., 2021; Wohner et al., 2020; Kan and Miller, 2022; Lopez Gomez & Escobar, 2022). Waste, therefore, affects all communities involved from raw material extraction and manufacturing all the way through consumption and its end-of-life treatment. In the epoch of globalization, without education and awareness, the ownership of responsibility for one's waste can be blurred, contributing to the upward trend of poorly discarded items into waste management systems (Clapp, n.d; Ritchie & Roser, 2018).

Poorly discarded items are a daunting issue within waste management as it affects the number of resources that can be recovered due to waste contamination. Waste contamination is the act of discarding an item in a waste stream that is not meant to be there (Anthony, 2020). Contamination hinders material recovery and waste diversion efforts as one wrongly discarded item can affect the recovery of other items (Wosik, 2021). It takes time and labour to sort through the contaminated items and often if a waste stream is too contaminated, the entire load is sent to landfill, most prevalent with recycling (Wosik, 2021). In 2019, Toronto's contamination rate was 30 percent an increase from 22 percent in 2015 (Yazer, 2020). Canada Fibers LTD which processes Toronto's recyclables has set a threshold of 27 percent contamination rate at which point it would start charging an annual fee of \$3.5 million and another \$500,000 for every additional percentage point beyond the 27 percent threshold (Norman, 2018; Yazer, 2020; Ricci, 2017). This means that every year that Toronto remains in the 30 percent contamination rate, the City of Toronto is invoiced a \$5 million dollar bill. Contamination is not only expensive, but it prevents materials from being recovered contributing to raw material extraction, resource consumption and the release of GHG emissions. Events, therefore, have a huge opportunity to

support the city by educating and bringing awareness to the waste issue through proper sorting of their waste and sustainability principles so that the impact can go beyond the event space (Jones, 2018).

Additionally, there are no efficient ways to check the sustainable development of events in Toronto. Events are not held accountable for proper waste management aside from making sure that they leave the event space as clean as it was found before. There are no requirements mandating planners to measure or report on their diversion rate, target, or achievement of goals. Without a baseline or a sense of accountability, it is hard for planners to understand the environmental impact that their event has had and to take responsibility by improving annually.

An evaluation of large city efforts across Canada (See chart 1) show that Toronto has many areas of improvements on the requirements, support, and resources it provides to the event industry. Toronto although ahead of many other major cities, is still lacking behind Vancouver which currently has methods to collect data from all events requiring their services, toolkits that guide planners through their sustainability goals and special event workshops that create opportunities for feedback and collaboration.

Table 1

**Event Requirements and Support by Host City**

City	Did the city establish city-wide waste goals and/or targets?	Do they require an event waste management (WM) plan?	Do they provide opportunities for feedback on WM plan?	Do they require post-event data submission?	Do they require events to make goals in alignment with the city's goals?	Do they provide a sustainable event guide?	Do they provide easily accessible resources (ex: more than a set of recommendations)?	Do they provide customized tools for planners (ex: waste diversion tracker, GHG calculator)?	Do they provide incentives, funding, and/or rental programs?	Do they provide tools or a platform for planners to share their knowledge/learnings?	Do they provide opportunities for collaboration within the city's event industry?
Toronto	Yes – 70% <sup>1</sup>	Yes <sup>2</sup>	Yes, not required <sup>3</sup>	Only if using city services, not required for external WM services <sup>4</sup>	N/A	Yes – 2015 <sup>5</sup>	WM checklist, vendor communication checklist, checklist for event clean up staff, FAQ page, waste station flag rental, recycling and organic totes free with liners, generic signage <sup>6</sup>	N/A	TSEIP for non-profit orgs, maximum amount of \$500,000 / infrastructure rentals (bins, water fountains, and waste station flag) <sup>7</sup>	N/A	N/A
Montreal	Yes – 70% <sup>8</sup>	Only eco-initiatives <sup>9</sup>	N/A	N/A	N/A	N/A	N/A	N/A	Funding for non-profit orgs, maximum amount of \$35,000 <sup>10</sup>	N/A	N/A
Calgary	Yes – 70% <sup>11</sup>	Yes <sup>12</sup>	Yes <sup>13</sup>	N/A	N/A	N/A	General waste sorting guide for events, waste volunteer recruitment template, waste communication to food vendors, waste checklist with timeline, and tips on	N/A	Festivals and Events subsidy program, maximum amount of \$50,000 <sup>15</sup>	N/A	N/A

<sup>1</sup> City of Toronto. (2021, August 20). [Waste Strategy Overview](#).

<sup>2</sup> City of Toronto (2015, January). *Application: Waste Management for Street Events*.

<sup>3</sup> Solid Waste Management Services. (2015, March). [Special Events Waste Diversion Handbook, pg. 9](#).

<sup>4</sup> City Solid Waste Management Service department receives weight of events they service.

<sup>5</sup> Solid Waste Management Services. (2015, March). [Special Events Waste Diversion Handbook](#)

<sup>6</sup> Solid Waste Management Services. (2015, March). *Special events waste diversion handbook*.

<sup>7</sup> City of Toronto. (2023). [Toronto Significant Event Investment Program \(TSEIP\)](#).

<sup>8</sup> City of Montreal. (2020, May) [Montreal Zero Waste Plan 2020-2025](#).

<sup>9</sup> City of Montreal. (2020). [Public Event Request](#).

<sup>10</sup> City of Montreal. (2023, January 20) [Support for festivals and cultural events](#).

<sup>11</sup> City of Calgary (2023). [Leading Calgary to Zero Waste](#).

<sup>12</sup> City of Calgary. (2023, April) See [Festival and event manual, pg. 20](#).

<sup>13</sup> City of Calgary. (2023, April) See [Festival and event manual, pg. 12](#).

<sup>15</sup> City of Calgary. (2023). [Event funding](#).

							reducing waste at events <sup>14</sup>				
<b>Ottawa</b>	N/A - complete d in 2023	N/A	N/A	N/A	N/A	N/A	Things to consider for greening an event, resources outsource to Vancouver, GreenFestivals and Rockefeller Foundation <sup>16</sup>	N/A	Major arts, cultural festivals, agricultural fair funding program, max not list <sup>17</sup>	N/A	N/A
<b>Edmonton</b>	Yes – 90% <sup>18</sup>	Yes, may be required depending on event, no template <sup>19</sup>	N/A	N/A	N/A	N/A	N/A	N/A	WinterCity Festivals and Events Grant Program, maximum amount of \$2,500 <sup>20</sup>	N/A	N/A
<b>Winnipeg</b>	Yes – 50% <sup>21</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Manitoba Event Hosting Grant, spent \$260,000 to fund 59 community events in 2022 <sup>22</sup>	N/A	N/A
<b>Mississauga</b>	Yes – 75% <sup>23</sup>	Yes, no template	N/A	N/A	N/A	N/A	N/A	N/A	Cultural Festivals and Celebration Grant, maximum amount of \$120,000 <sup>24</sup>	N/A	N/A
<b>Vancouver</b>	Yes – 80% <sup>25</sup>	A Zero Waste plan and a completed event carbon	Yes, dedicated staff to help planners to develop a	Yes <sup>28</sup>	N/A	Yes – 2017 <sup>29</sup>	List of local suppliers and service providers, information sheet for various stakeholders on	Special Event Permit workshops, special events	Grants for free public events, maximum amount of \$75,000 / infrastructure	Yes, special event permit workshop	Yes, special event permit workshop

<sup>14</sup> City of Calgary. (2023) *Planning a Festival or Event in the City*. See [event waste, recycling & composting section](#).

<sup>16</sup> City of Ottawa. (n.d.) [Event Guide](#).

<sup>17</sup> City of Ottawa. (2023). [Major arts, cultural festivals, agricultural fair program](#).

<sup>18</sup> City of Edmonton. (2019). [The Future of Waste](#).

<sup>19</sup> City of Edmonton. (2023). [Neighbourhood event application form](#).

<sup>20</sup> City of Edmonton. (2023). [WinterCity Festivals and Events Grant program](#).

<sup>21</sup> City of Winnipeg. (2011). [Winnipeg Waste Management Strategy](#).

<sup>22</sup> [Manitoba announces funding for 59 community events](#). (2022, November 14). Global News.

<sup>23</sup> Region of Peel (n.d.) [Roadmap to a circular economy](#).

<sup>24</sup> City of Mississauga. (2022, October 14). [Cultural Festivals & Celebration Grant Program](#).

<sup>25</sup> City of Vancouver. (2023). [Zero Waste 2040](#).

<sup>28</sup> City of Vancouver. (2017, March 17). [Greening Events Planning Guide, pg. 9](#).

<sup>29</sup> City of Vancouver. (2017, March 17). [Greening Events Planning Guide, pg. 9](#).

		emissions calculator <sup>26</sup>	green event plan <sup>27</sup>				reducing waste, how to calculate waste diversion rates, things to consider when hosting a green event, goals of the city in promoting sustainable events embedded in the Special Event Policy <sup>30</sup>	GHG emissions calculator <sup>31</sup>	rentals (bins, water fountains, bike racks, and signage) <sup>32</sup>		
<b>Brampton</b>	Yes – 75% <sup>33</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Marquee Festival and Event funding program, maximum amount of \$515,000 / Culture and Events, max - \$50,000 / Brampton Tourism Event funding program, max \$300,000 <sup>34</sup>	N/A	N/A
<b>Hamilton</b>	Yes – 65% <sup>35</sup>	Yes, no template	N/A	N/A	N/A	N/A	N/A	N/A	City Enrichment Fund, max not listed <sup>36</sup>	N/A	N/A

<sup>26</sup> City of Vancouver. (2017, March 17). [Greening Events Planning Guide, pg. 5-6.](#)

<sup>27</sup> City of Vancouver. (n.d.) [Special Event Permitting Handbook, pg. 13.](#)

<sup>30</sup> City of Vancouver. (n.d.) [Special Event Permitting Handbook](#); & City of Vancouver. (2022). [Special Event Policy.](#)

<sup>31</sup> City of Vancouver. (n.d.) [Special Event Permitting Handbook.](#)

<sup>32</sup> City of Vancouver. (2023). [Community and Social Service Grant.](#)

<sup>33</sup> Region of Peel (n.d.) [Roadmap to a circular economy.](#)

<sup>34</sup> City of Brampton. (2022, February 16). [Brampton Tourism Event Funding Program.](#)

<sup>35</sup> City of Hamilton. (2023). [Solid Waste Management Master Plan.](#)

<sup>36</sup> City of Hamilton. (2023). [City Enrichment Fund.](#)

Furthermore, it was mentioned in an interview that an event planner does not necessarily need any certifications or continued education especially surrounding the environmental impacts of events to be successful. Most certifications require that you are already working in the field doing your own research and gaining your own experience before fully being certified (VanCuren, 2021). This further reinforces the sentiment of planners who feel confused regarding information within sustainability and who are asking for more resources without compromising their already busy schedule.

Below are programs listed on OntarioCollege.ca, a website by the Ontario College Application Service. It shows that out of 17 colleges offering event management and event planning programs, only 2 offered a course related to environmental sustainability. It is possible that environmental best practices are mentioned in class but because it was not mentioned in the course descriptions or learning objectives, it was assumed that environmental sustainability was not a priority in 88% of the Ontario colleges offering event management and event planning programs.

The lack of courses focused on sustainability within the event industry creates an onus on the event planner to seek additional certifications or information on their own time. Lack of time and confusion may be an obstacle for event planners who would like to implement sustainable best practices but do not necessarily have the support or expertise to do so successfully.

Table 2

**The Incorporation of Sustainability within Event Management Courses**

College	Program	Length of Program	Offers courses related to environmental sustainability
Algonquin College	Event Management	1 year	No
Centennial College	Event Management	1 year	Yes (1 course focusing on waste management)
Centennial College	Event Planning	2 years	No
Conestogac	Event Management	1 year	No
Durham College	Event Planning	2 years	Yes (1 course focusing on sustainable best practices in the industry)

Fanshawe College	Sport and Event Marketing	1 year	No
George Brown College	Event Planning Program	2 years	No
George Brown College	Sport and Event Marketing Program	1 year	No
Georgian College	Event Management	1 year	No
Humber College	Event Management	1.5 years	No
Lambton College	Tourism Operations Management	2 years	No
Loyalist College	Public Relations – Event Management	1 year	No
Sault College	Public Relations and Event Management	1 year	No
Seneca College	Event and Media Production	2 years	No
Seneca College	Event Management – Creative Design	1 year	No
Seneca College	Event Marketing – Sports, Entertainment, Arts	1 year	No
St. Clair College	Event Management	1 year	No

In another interview, one mentioned that she was not an event planner but took upon the role within their non-profit organization. This may be true of other nonprofit organizations where many roles are filled by few individuals who may not necessarily have experience in sustainability or in the creation of waste management plans. Having tailored resources that can be easily accessible by these individuals and all planners hosting an event in Toronto is one solution amongst many that can address this issue.

Sustainability within the event industry is becoming a big topic and growing theme for the upcoming years. The Joint Meetings Industry Council announced its program to guide event planners and organizations in hosting Net-Zero Carbon Events shortly after COP26, where world leaders met in Glasgow, Scotland to commit to achieving 50% reduction in carbon emissions by 2030, in alignment with the Paris Agreement (JMIC, n.d.,). This program quickly received over 100 signatories committed to achieving this goal and with many others who signed up as supporters to contribute with expertise and funding. (JMIC, n.d.,). With many countries moving toward Net-Zero within the next decade, it is no surprise that waste

management programs will begin to be prioritized, enacting regulations that will affect many industries within the food and hospitality field. This trend is exemplified in the Canadian Government announcing its single-use plastic ban as early as 2022, forcing many to scramble for a more sustainable alternative (Government of Canada, 2021). In a recent survey, the Event Academy asked various planners and experts within the event industry what they thought the biggest challenge will be for the event industry in 2020. Results showed that 35.04% of respondents mentioned “being environmentally sustainable”, the highest chosen response in this category (Event Academy, 2020). Robert Bagust, the Worldwide Congress Manager at Bristol-Myers Squibb informs:

*“I expect to see, and hope to see, a continuation of the immediate reaction to the heightening of the ‘plastic problem’ but this will remain front and centre alongside sustainability and health issues” (Event Academy, 2020)*

The growing trend toward sustainability, upcoming regulations, and the lack of educational opportunities within waste management creates an urgency for event planners to receive the information needed to become successful or they may be left behind in this worldwide transition.

### **1.3 ALIGNMENT WITH THE CITY OF TORONTO’S GOALS**

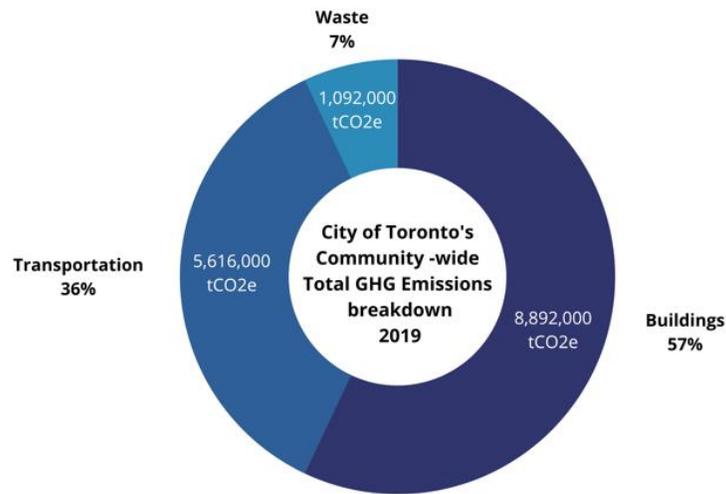
The City of Toronto developed an ambitious and comprehensive climate action strategy to reduce community-wide greenhouse gas (GHG) emissions by 65% by 2030, and to reach Net Zero by 2040 (TransformTO, 2021, p. 9). The strategies outlined in the TransformTO document envisions a low carbon future that reduces emissions and achieves multiple community-wide priorities contributing directly to the United Nations’ Sustainable Development Goals (SDG), notably SDG 1 – No Poverty, SDG 3 – Good Health and Well-being, SDG 7 – Affordable and Clean Energy, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainability Cities and Communities,

SDG 12 – Responsible Consumption and Production and SDG 13 – Climate Action. TransformTO publicly commits to prioritizing equitable distribution of benefits and costs to reduce the burden of transition on those most vulnerable and to significantly reduce the burden of climate change on future generations (TransformTO, 2021, p. 12).

This document updates that although Toronto is on track to achieve its 2020 GHG emissions target of 30% reduction from its 1990 baseline year, emissions reductions have plateaued, suggesting that more aggressive climate action needs to be taken for the remaining emission reduction targets by 2040 (TransformTO, 2021, p. 7).

GHG emission reduction goals and strategies must be emphasized as actions taken within waste management directly affect the volume of emissions emitted and saved. In 2019, the most recent year for which data is available, community-wide emissions which include the burning of natural gas from buildings, the burning of fossil fuels from personal cars and the GHG emissions resulting from landfills, were approximately 15.6 million tonnes (MT) of carbon dioxide equivalent (CO<sub>2</sub>e) (TransformTO, 2021, p. 20). Even though waste amounts to only 7% of the total GHG emissions (see figure 4), the city estimates that the potential capture of biogas from all City owned landfills in combination with its three organics processing facility could provide enough gas to fulfill the City's entire natural gas needs annually with surplus (TransformTO, 2021, p. 96). These astonishing figures put in perspective the amount of GHG emissions that are released into the atmosphere every year simply from discarded waste. Thus, reducing waste within the event industry will not only contribute to the City of Toronto's Long Term Waste Management Strategy but ultimately affect the City's overarching goal of achieving Net Zero.

Figure 4

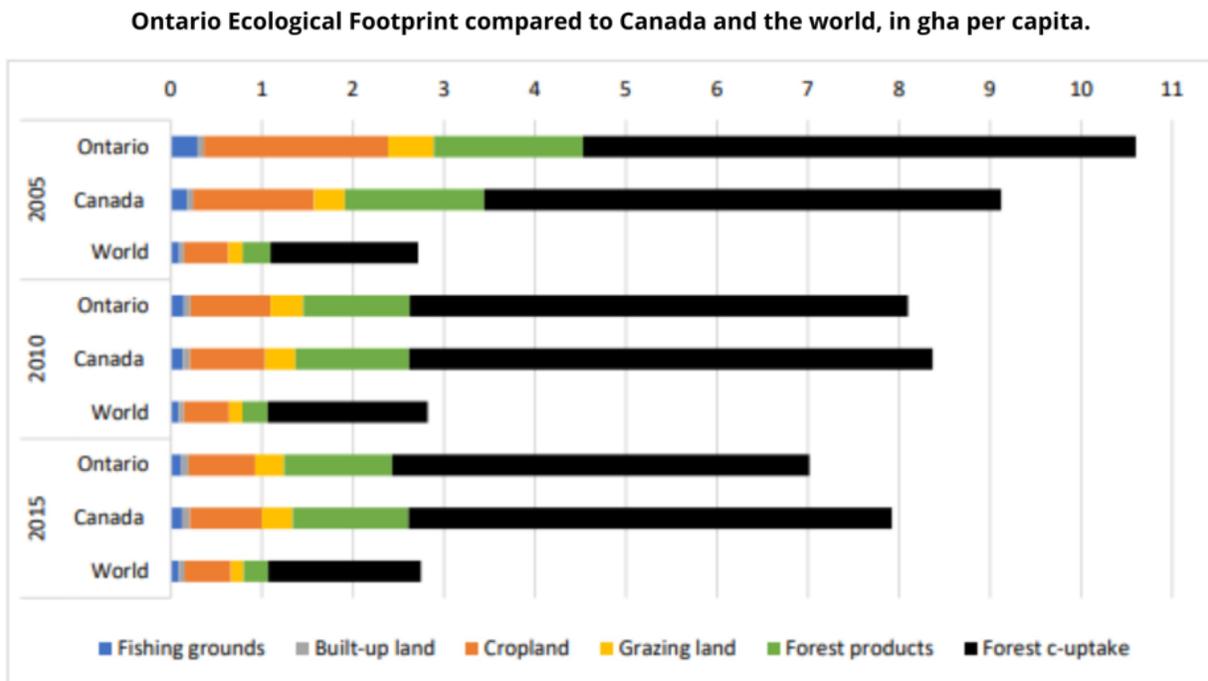


(TransformTO, 2021, p.21)

TransformTO has many climate action strategies within different categories to reduce GHG emissions. Most relevant to this paper are its goals within Sustainable Consumption & Waste. It is important to note that although waste accounts for 7% of the GHG emissions in Toronto's GHG inventory, consumption emissions from the products and services consumed by residents, businesses and institutions in Toronto are not accounted for (TransformTO, 2021, p. 72). It's possible that once accounted, could significantly increase the percentage of emissions emitted within this category, creating a stronger argument for the prioritization of waste at events.

Ontario's Ecological Footprint of Consumption (EFC) provides insight into how substantial this category could be once completed. The Ecological Footprint which is expressed in global hectare (gha) as the standardized unit of measure ranks Ontario's per capita EFC as 12<sup>th</sup> highest in the world for the year 2015 (Miller et al., 2021). Analysis between 2005 to 2015 consistently show Ontario as more than double the world's EFC in gha per capita with carbon emissions being the largest component for all years (see figure 5) (Miller et al., 2021). As Ontario's most populous city, Toronto relates as being a significant contributor to this large Ecological Footprint (WorldAtlas, 2019).

Figure 5

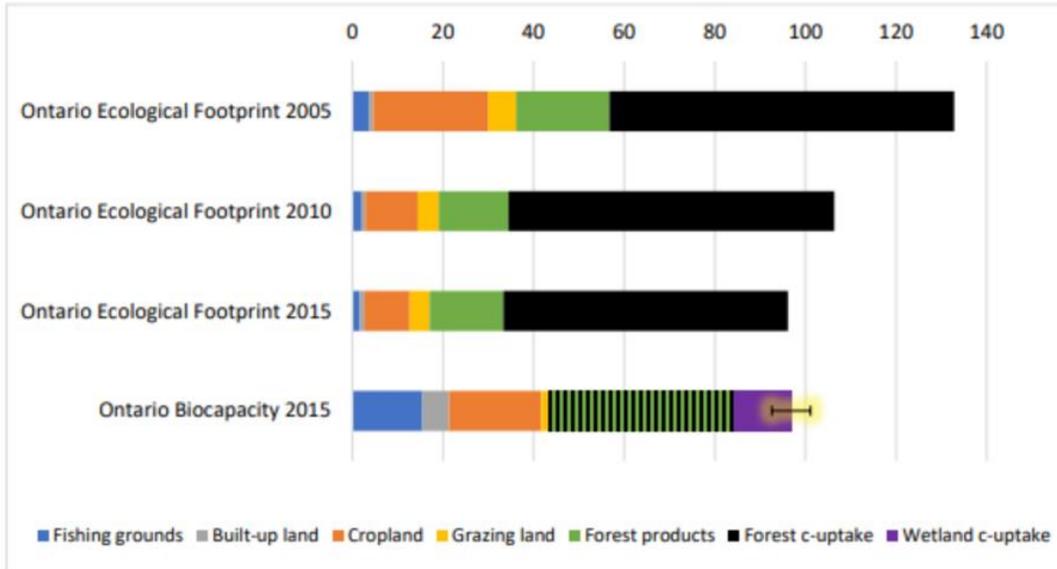


(Miller et al., 2021)

The relationship between consumption and waste is tightly knit, as the latter cannot be addressed without consideration of the former. If left as is, it can be assumed that additional infrastructure may be needed in the form of landfills, incinerators and digestors (OWMA, 2021). These waste processing facilities take a significant amount of land and resources to plan, build, and maintain consequently leading toward a decline of biocapacity - productive land capable of providing renewable resources and sequestration of carbon (Global Footprint Network, 2022a; OWMA, 2021). In 2015, Ontario's consumption required the entire biocapacity provided by all lands and waters in Ontario (see figure 6) (Miller et al., 2021). If actions within consumption and waste are not urgently taken, further demand for consumption could exceed the regenerative capacity of Ontario's natural ecosystem – resulting in an ecological overshoot (Global Footprint Network, 2022b).

Figure 6

**Ontario Ecological Footprint versus biocapacity, in millions of global hectares.**



(Miller et al., 2021)

Pertaining to Sustainable Consumption and Waste, goal 16 of TransformTO commits to increasing residential waste diversion from the City’s integrated waste management system, 70% by 2030 through its Long-Term Waste Management Strategy. This strategy emphasizes the goal of diverting 70% of residential waste away from landfills by focusing and promoting initiatives high on the waste management hierarchy. The City’s current waste diversion rate is 52% making this an ambitious goal with a tight deadline (City of Toronto, 2022b). The figures provided as residential waste is relevant to Toronto’s event industry as many planners use the City’s waste management services, contributing to these figures (City of Toronto, 2015, p.5).

Goal 15c of TransformTO focuses on the implementation of the Single-use Takeaway Items Reduction Strategy meant to address approximately over 400 million single-use plastic items generated annually by single family households in Toronto in the form of mandatory and voluntary measures (TransformTO, 2021, p.74; City of Toronto, 2022c). Although there is no data related to the plastic waste

generation of the event industry in Toronto, events contribute greatly to this number on an annual basis. For example, the average stadium that hosts 300 events annually uses 5.4 million single-use cups (Damariscotta, 2021); major sporting events can generate up to 750,000 single-use plastic bottles (UN Environment Programme, 2018) and a major baseball league can generate up to 215,000 straws in one season (Un Environment Programme, 2018). The Great Canadian Shoreline, an annual grassroots initiative, found that in 2021, 32% of the litter that was picked up around Canada's freshwater and marine shorelines were single-use food and beverage containers (Great Canadian Shoreline, 2021). Out of all the litter picked up, 12 items were identified as being the most prevalent including cigarette butts, plastic pieces, Styrofoam pieces, food wrappers, bottle caps, paper, beverage cans, plastic bags, straws, plastic bottles, coffee cups and lids and PPE, all of which are items commonly found at events held in Toronto (Great Canadian Shoreline, 2021).

Although not elaborated and engrained as a goal within Toronto's Net Zero Strategy, there are other legislations formulating concurrently that will affect all stakeholders within the event industry. Once implemented, the Extended Producer Responsibility (EPR) will shift the responsibility of waste away from the city and onto the Industrial, Commercial, and Institutional industry (ICI) (Synowiec & Ueta, 2020). The implementation of the EPR will greatly change the design of products to become less toxic, more recyclable, and more durable, making some existing materials obsolete (Toronto Environmental Alliance, n.d). It will be the responsibility of the event planner to learn and understand the regulations, requirements of the city's new waste management system while also understanding different material types and if they can be effectively managed by waste service providers.

There is no doubt that all these upcoming changes will cause confusion and anxiety amongst many stakeholders. Accessibility of information and resources tailored to the City of Toronto's evolved waste management system will be crucial for achieving city goals and maintaining progress. Ensuring that everyone in the event industry has equal access to information regardless of organizational capacity, time

and expertise will be one key area where the principles of equity can be applied. The underlying goals of the Net Zero Strategy is to foster a green economy and develop more green industries within the city (TransformTO, 2021, p.85). Accessibility to information will be crucial but having the ability to also mobilize the information through easy access to lists of green businesses and green organizations, will ultimately facilitate the demand within the green event industry to create more jobs and transform or redefine existing jobs that are heavily reliant on fossil fuels (e.g., single-use plastic creation).

## 1.4 ZERO WASTE FRAMEWORK

Zero Waste although an ambitious goal, was chosen as the ideal framework for this research to encapsulate the aim to go as far as possible in reducing waste, while simultaneously contributing to Toronto's TransformTO goals.

According to the Zero Waste International Alliance, Zero Waste is defined as:

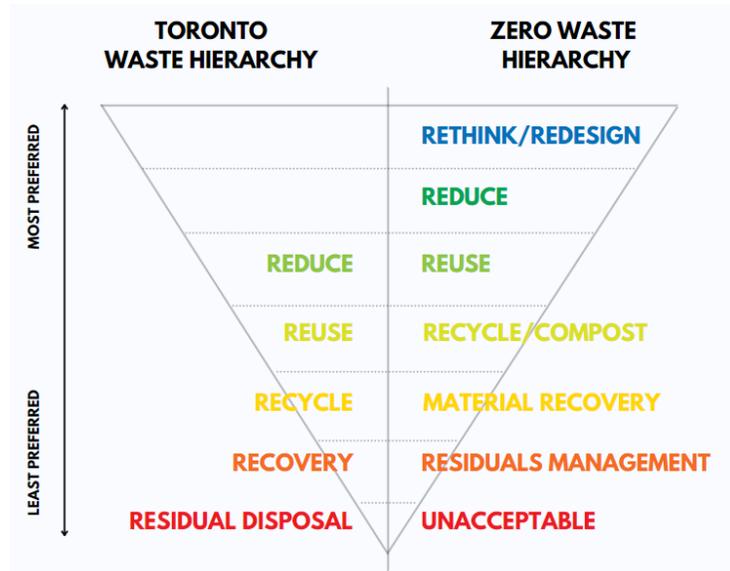
“The conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.” (ZWIA, 2018).

It is accompanied by the Zero Waste hierarchy, a refinement of the currently adopted waste hierarchy where incineration and landfilling are no longer acceptable.

A comparison between Toronto's waste hierarchy and the Zero Waste hierarchy can be seen in figure 7. The most notable differences can be seen in the Zero Waste categories of rethink/design, and unacceptable.

Figure 7

A Comparison of Toronto’s Waste Hierarchy and the Zero Waste Internationally Recognized Hierarchy



(City of Toronto, 2016; Zero Waste International Alliance, 2018)

Whereas Toronto firstly focuses on reducing the number of products to be created for resource conservation (City of Toronto, 2016), Zero Waste encourages the use of materials already in the market either from reuse, recycle, or compost to create products and redesigning these products to address the issue at the source to be proactive rather than reactive (ZWIA, 2018). This eliminates raw material extraction and maintains a closed loop cycle where materials are consistently used and captured over and over again, the underlying principle of a Circular Economy. Furthermore, within Toronto’s waste hierarchy of recovery and residual disposal, incineration and landfilling are likely scenarios that can further be explored (City of Toronto, 2020 & Levy, 2019 & Toronto Environmental Alliance, n.d) which reinforces the generation of waste. Both scenarios release toxins into the environment and contribute to climate change through the emittance of greenhouse gases which are considered unacceptable under the Zero Waste hierarchy. For Toronto to achieve its TransformTO goals, its waste hierarchy needs to be updated and the Zero Waste hierarchy needs to be adopted and applied within decision making.

Achieving a 90% diversion rate as per Zero Waste standards, is currently not possible in current society but the implementation of this framework has allowed many cities to adopt Zero Waste strategies, policies and plans to reduce the environmental impact of their waste and improve the quality of life of their citizens (Zaman, 2015). The goal of this research is to similarly affect change by narrowing the scope toward the event industry so that strategies to be developed can be specific, manageable, and measurable within the right order of priorities in the waste hierarchy.

Recommendations arising from survey results and additional research will be formulated by applying the Zero Waste guiding questions (see table 3) and the strategic Zero Waste Framework (see table 4). This Zero Waste framework was developed based on the inputs of 68 waste experts from 23 countries (Zaman, 2017). Experts were selected based on their contribution to peer-reviewed academic publications identified using Scopus Database, involvement with waste management organizations and institutions, and affiliation with waste management policy and decision-making processes (Zaman, 2017). This framework was chosen as ideal for this research to provide foundational structure for the recommendations that will be proposed as each element is supported by various experts, globally.

Recommendations will result from strategies and implementations from all over the world and applied within the context of Toronto’s waste management system while taking into consideration the needs and concerns of the research participants. Further alignment is discussed in the results and recommendations sections.

Table 3

**Zero Waste Guiding Questions (ZWIA, 2018)**

7 Rs	Guiding Questions
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<b>Rethink/ Redesign</b>	<p>What has led us to our present linear use of materials and thus, what needs to evolve to move towards a closed loop model?</p> <p>How do we re-design systems to avoid needless and/or wasteful consumption?</p>
<b>Reduce</b>	<p>What supports the use of less material and less toxic material?</p>
<b>Reuse</b>	<p>What supports the better use of those products we already have in ways that retain the value, usefulness, and function?</p>
<b>Recycle/Compost</b>	<p>How do we ensure materials are put back in the materials cycle?</p>
<b>Material Recovery</b>	<p>What was salvaged from mixed waste?</p>
<b>Residuals Management</b>	<p>What is still left and why?</p> <p>What do we need to take out of the system that should not have been circulated in the first place?</p> <p>How do we manage what is left in a flexible manner that continues to encourage movement towards Zero Waste?</p>
<b>Unacceptable/ Regulation</b>	<p>What systems and policies encourage wasting and should not occur?</p>

Table 4

The Strategic Zero Waste Framework (Zaman, 2017)

Phases	Strategic Elements
<b>Waste prevention &amp; avoidance</b>	<p><b>Awareness and education of waste</b> - Effective public awareness programme on the waste management system should be provided by the governing body (educational institutes, city councils, etc.) through formal and informal education systems.</p>
	<p><b>Transformative knowledge and willingness to change behaviour</b> - Zero waste programmes (transformative knowledge) should provide proactive support strategies to motivate behaviour change towards responsible and sustainable resource consumption practices.</p>
	<p><b>Responsible shopping and consumption practices (sustainable consumption)</b> - Sustainable and responsible living should be embraced and practiced by consumers by focusing on the principle of environmental conservation and stewardship.</p>
	<p><b>Collaborative consumption practices</b> - Consumption of resource should be improved through a shared-ownership of product service systems.</p>
	<p><b>Innovative product design (cradle-to-cradle)</b> - Products should be designed by following a cradle-to-cradle design principle so that resource can be recovered at the end-of-life phase.</p>
	<p><b>Producer responsibility (take-back scheme)</b> - As manufacturers are responsible for managing their end-of-life products, waste products should be managed and recycled under the extended producer responsibility principle.</p>
	<p><b>Extended product lifespan through repair/re-use</b> - The use-life of post-consumer products should be expanded by up-cycling (repairing/reusing) and contributing to the circular economy.</p>
	<p><b>Market creation for post-consumer products re-circulation</b> - A favourable market condition for post-consumer goods and recycling materials should be ensured and enabled considered as economically viable commodities.</p>
<b>Waste management &amp; treatment</b>	<p><b>New infrastructures (bins, collection vehicles, etc.)</b> - Appropriate waste infrastructure such as separate bins, kerbside collection system systems should be provided for continuous improvements of waste management practices.</p>
	<p><b>Decentralized recycling and resource recovery centres</b> - Local government should provide decentralized recycling and resource recovery facilities within the closed-proximity of the community.</p>

	<p><b>Enabling social technology through community participation (recycling, composting, etc.)</b> - Empower social technologies such as re-use, re-pair and recycle through community participation.</p>
	<p><b>Improve source reduction through pay-as-you throw principle</b> - Source reduction by enabling and introducing regulatory policies and programs should be improved.</p>
	<p><b>Environmentally friendly waste treatment solutions</b> - Application of environmentally friendly waste treatment technology to ensure a maximum resource recovery with a minimum environmental pollution should be encouraged.</p>
	<p><b>Regulations on restricted mass use of landfill and waste-to-energy (WTE)</b> - WTE technology should not be applied as a mass-burn solution of waste treatment unless no alternative and feasible solution is available.</p>
	<p><b>Effective waste collection services (kerbside waste collection)</b> - Landfill should be banned and applied as an interim disposal option.</p>
	<p><b>Waste incentives (levy, taxes, token, etc.)</b> - Economic incentive mechanisms should be facilitated to motivate and promote effective management practices.</p>
<b>Monitoring &amp; assessment</b>	<p><b>Available and reliable waste data</b> - Annual waste management data should be collected by maintaining a standardized data collection and reporting systems.</p>
	<p><b>Performance evaluation through zero waste research</b> - Research on zero waste should be conducted to provide a better industrial design solution for manufacturers and to improve resource recovery efficiency from waste.</p>

## METHODS

As an attempt to identify gaps within event waste management to positively affect waste diversion, various methodologies were used in the gathering and analysis of data. This section will explain the methods used to disseminate information, in retrieving participants and its sample size, data collection and the procedures involved in data analysis.

## 2.1 DISSEMINATION OF INFORMATION

Prior to gathering data, various platforms were used to disseminate information and to increase the reach and sample size of this research. Initially, a variation of this research question was submitted to the City of Toronto's Women4Climate (W4C) program, where 12 participants were chosen to develop their climate action ideas through one-on-one mentorship, business development workshops, and networking opportunities. This program improved the credibility of my role in researching this topic as it allowed me to incorporate the City of Toronto name into my outreach email (see appendix 1). Additionally, a website on WordPress was created under the domain name TORefuse.ca (see appendix 2) to direct all participants to a localized area for further information about me, this research, my supervisor and my W4C mentor. It also had tabs on the top labelled, "Event Planner", "Waste Management Stakeholder", and "Focus Group". These tabs provided focused directions to each research group and ensured that they viewed the appropriate consent form (see appendix 3) and questionnaire (see appendix 4). This website was an integral part in controlling the amount of information that each participant received in different stages, for example, participants could not access the questionnaire unless they firstly clicked "I agree" at the bottom of the consent form. Furthermore, an Instagram account was created under the name TORefuse to educate Torontonians about waste management in engaging short form content (see appendix 5). Although the primary purpose of this account was public education, it provided access to an expanded pool of participants outside of my network for the focus group.

## 2.2 DATA COLLECTION METHOD

Qualitative methods such as surveys and interviews were the preferred method for this research as it provided four important benefits (Vaughn & Turner, 2016):

1. To gain a deeper understanding of participants' needs
2. To identify specific context that can lead to the creation of new resources
3. To understand participants' perception with current waste practices
4. To build rapport.

This research employed semi-structured interviews with many open-ended questions to understand the challenges perceived by each research group and some closed-ended questions to understand their attitude and priorities toward waste management. All questions were reviewed and edited by my supervisor beforehand and approved by the Research Committee of the Faculty of Environmental and Urban Change. Prior to completing the survey or interview, all participants were provided with the purpose of the research, the concept of voluntary participation, the potential outcomes of the research, and the guaranteed confidentiality of data within the consent form. All questionnaires were saved on Google Forms and names were not asked to ensure anonymity, except for the Focus Group pre-interview questionnaire where names were asked to allocate them to different dates based on their demographics and to guarantee that they had read the consent form prior to their interview dates.

Focus groups were identified as the ideal structure for the event attendee research group to maximize the number of responses within a short time span (Vaughn & Turner, 2016). Much like interviews they provide the ability to pose questions, provide comments and learn more about individual experiences, thoughts, values, and opinions (Katz-Buoincontro, 2022). Unlike the Event Planner and Waste Management Stakeholders research groups, who were individuals considered experts in their field, focus groups create space for event attendees to build off each other's ideas and experiences, relieving the pressure on any one particular individual to respond on the topic. It allows participants the flexibility to express their views in their own language and provides a glimpse of their attitudes toward discussed themes and concepts (Refsgaard & Magnussen, 2008).

Prior to conducting interviews and focus groups, I firstly evaluated my own reflexivity and positionality within the context of this research. It was important to continuously remind myself the goal of the research, which was to learn from the lived experiences of all those within the research group and to be mindful of the biases that I may potentially exude during positive and negative responses.

Due to my position as a researcher within waste management, I recognize how I may hold influence in guiding conversations within each research groups as such, I proceeded with caution with each of my responses as much as I could by applying moments of reflection before responding and leading with questions more so than statements. I found that this exercise was extremely helpful, especially encountering one participant who agreed to a phone interview where my questions were met with negative responses and a pessimistic attitude towards recycling. Nonetheless, I withheld the inclination to debate, and captured accurately their responses and attitudes as it was spoken and maintained an impartial composure.

## 2.3 SAMPLING AND SAMPLE SIZE

The process of collecting data was organized into three research groups, Event Planners; Waste Management Stakeholders; and two Focus Groups. Event planners were firstly identified through a Google search of annual Toronto events and festivals. Each outreach email sent was either to a specific person listed on the events' website or a general email that asked to be connected to their event organizer. It had a description of the research, my affiliation with York University and Women4Climate. It asked for 30-minutes of their time for a virtual interview on ZOOM or 15-minutes to complete a questionnaire on Google Form and the output of the research. Out of twenty-seven emails sent, five people agreed to do a 30-minute interview and eight people agreed to complete the survey, a 48% response rate. Interviews were the preferred method of research as it allowed for further follow-up questions, opportunities for clarification and space to build rapport. One respondent was removed within

the data analysis section as being outside of scope due to their role being restricted only to the movie theatres and another was removed from the Event Planner group because they identified themselves as more of a Waste Management Stakeholder. Therefore, this research group had eleven true event planners.

Participants within the Waste Management Stakeholder group were found through recommendations of event planners and my supervisor. Outreach emails were sent to various waste management service providers within the City but none responded back. Out of fifteen emails sent, three responded, a 20% response rate. This research group was the weakest due to the lack of variety in responses but being mindful of time, it met the minimum threshold of two to three in each group as outlined in my plan of study.

A callout was posted on TORefuse's Instagram story to participate in a small focus group to provide their opinions on waste management practices at events. Outreach was also conducted through my supervisor's network and Women4Climate's network. Focus group participants mostly reached out to participate and were guided to the TORefuse website for information, the consent form and a pre-interview questionnaire (see appendix 6). This questionnaire allowed me to understand the demographics of the participants and to allocate them to two different focus groups depending on their age and identified gender. This allocation process was conducted to ensure that there was a variety in opinions during the groups and that conversations were not dominated by one age group or gender group. Each focus group had five participants with a total of ten overall participants.

## **2.4 DATA ANALYSIS**

Surveys and interviews were conducted during February 2020 to March 2020. Responses from all three research groups were saved on Google Forms and manually analysed to maximize the amount of

information that could be extrapolated for the recommendation section. Responses were also manually coded on Microsoft Excel based on reoccurring themes and chosen categories were developed based on the most frequently appearing key words and concepts within each question (see appendix 7). The most frequently coded categories revealed the most experienced challenges within each research group and guided further research to develop tailored solutions presented in the recommendation section. This sequential process allowed me to firstly understand the challenges that were being faced, identify the gaps within each research group and present recommendations that could potentially alleviate those challenges.

Although the Focus Group was not integral to the purpose of this research, its value was immeasurable as it enriched my understanding of various researched strategies and whether there would be an uptake in the implementation phase. As the success of any particular waste management strategy depends on the willingness of the end user (event attendees) it would have been unjust to this research to exclude this group. It is important to note that 70% of the focus group participants identified as an environmentally conscious person in the pre-interview questionnaire. Thus, it is possible that these responses were slightly more favourable toward green events – making this group slightly biased.

The coded responses from the Focus Group were used to create word clouds. This visual representation of data was used to display the various themes, key words, and concepts that were discussed. Although questions were asked to guide conversation, participants were encouraged to discuss and elaborate on anything that they thought was relevant. Some responses were not relevant to any particular question but regardless still valuable in being captured. This form of data visualization allows the reader to gain a general sense of the conversation that was had, as the higher coded responses are displayed bigger than the others, suggesting its popularity in attitudes and opinion. It was also a form of visualization that incorporated every participant's voice notwithstanding the question and to avoid discerning between responses of what I perceived to be reportable or not.

# RESULTS

## 3.1 EVENT PLANNERS

The results of the questionnaire and interviews show that there is a lack of information easily accessible for event planners who want to host more sustainable events in Toronto. Barriers related to education, communication, resource constraints, and support from the City of Toronto were the most mentioned throughout all three research groups.

When asked about challenges in fulfilling their responsibilities related to waste management at events, planners responded that they were unsure who to contact for price comparison, unsure of companies that provide low waste food solutions that follow health standards, unsure how to overcome sponsorship agreements that promote waste, logistical issues with vendors, difficulty predicting the volume of waste for different events, participant expectations for swag, and justifying sustainable alternatives on a tight budget (see result 1).

Results 1		
What are the challenges you experience in fulfilling your responsibilities related to waste management at events?		
Themes	Characterization	Number of related responses
Uncontrolled outcomes	Beyond the responsibilities of their roles	1
Lack of coordination / Partnerships with stakeholders	Confusion before, during and/or after the event	5
Insufficient communication	Unaware of services, lack of shared information, and/or poor communication methods	3
Resource constraints	Restrictions on time, money, staff and/or infrastructure	2

When asked about the challenges that prevent their role from minimizing waste and increasing their diversion rates, planners responded that they do not know what companies can provide alternative solutions for different services, participants are uneducated or unaware about sorting their waste, unsure about the best signage for different receptacles, single-use promotional materials, and sustainability not being a priority amongst decision makers (see result 2).

Results 2		
What are the challenges that prevent your role from minimizing waste / increase waste diversion rates?		
Themes	Characterization	Number of related responses
Lack of knowledge of sustainable options	Unaware of sustainable products and services	2
Educational barriers	Confusion on waste regulations	3
Resource constraints	Restriction on time, money, staff and/or infrastructure	4
Lack of guidance on decision making	Unaware of waste hierarchy	1
Withdrawal of sustainability efforts	Lack of executive support	1

When asked about what could help them overcome the mentioned challenges, planners mentioned guidance on how to run an event with minimal waste and a small budget, case studies on other events, assistance and support for portable waste management systems, stricter regulations, policies and fines, incentives to go green, clearer, and consistent communication, and better public education (see result 3).

Results 3		
What do you think would help you overcome those challenges? Either from you or your team or other people?		
Themes	Characterization	Number of related responses
Training/ guidance	Clear, consistent and/ or tailored information	2
Support from other stakeholders	Additional assistance in the form of infrastructure, rules, regulations and/ or policies	4

Public education and awareness	More public education and incentives	3
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When asked about the kind of support they need to improve their event waste management plan, planners responded with more affordable waste infrastructure, easy and digestible best practices and guidelines, updates on strategies and initiatives in the space, more educational content, access for collaboration amongst businesses, more water tap stations, and more policies that would allow them to advocate for sustainable options (see result 4).

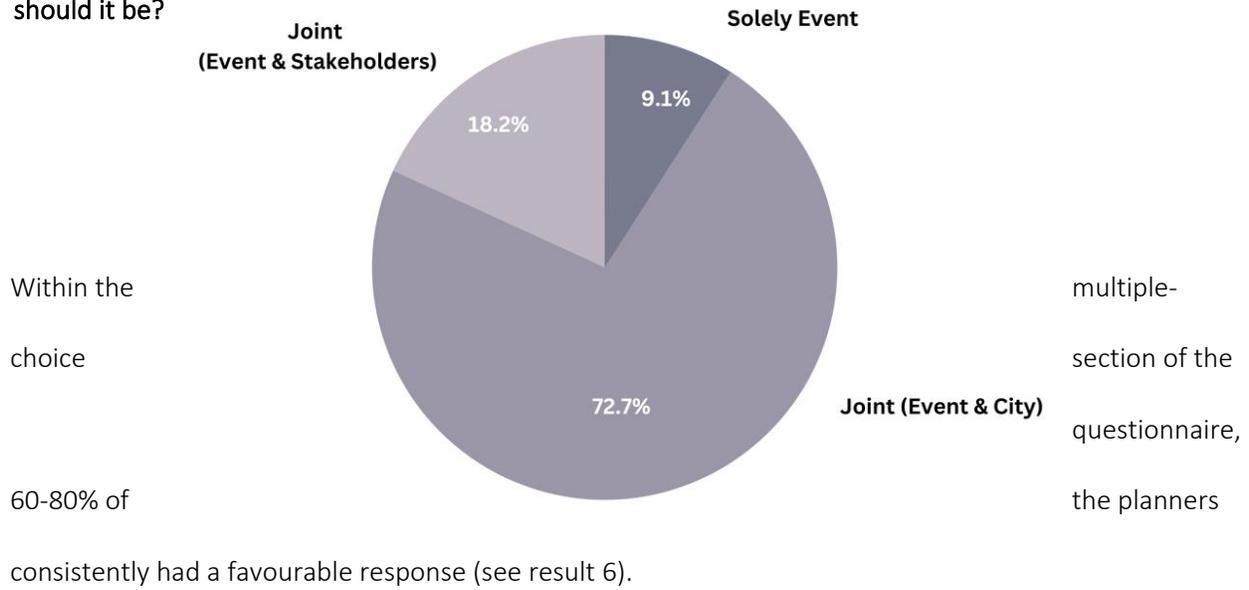
Results 4		
What can the City provide you to better create a management plan, implementation and follow through?		
Themes	Characterization	Number of related responses
Resource support	Accessibility of waste infrastructures and services, public education, shared network and updated information	7
Training/ guidance	Clear, consistent, and/ or tailored information	2
Stricter regulations	More policies	1

When asked about how they would like to be accountable for their waste and whose responsibility it should be, a majority of planners responded with a joint responsibility between the event and the City. Planners want to see how they can contribute to the City’s waste objectives and goals, be given more affordable options to become sustainable, be held accountable through fines, inspectors, and bans, be given feedback for improvement, and be given more training and educational resources (see result 5).

Result 5

How would you like events, in general, to be held accountable for their waste? Whose responsibility

should it be?



Within the choice

60-80% of

consistently had a favourable response (see result 6).

multiple-

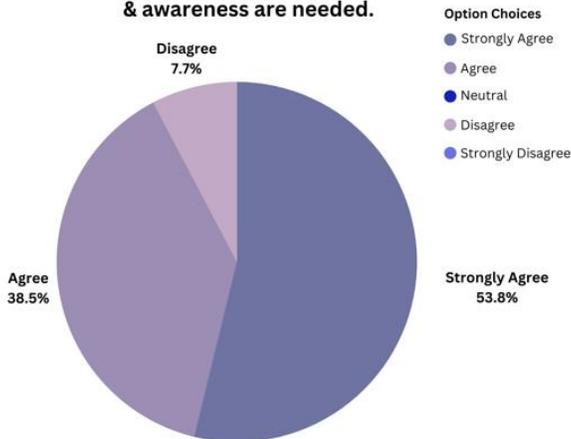
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questionnaire,

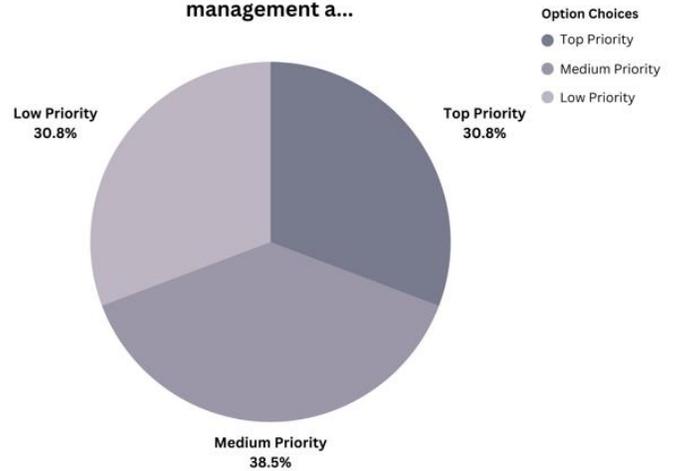
the planners

Results 6

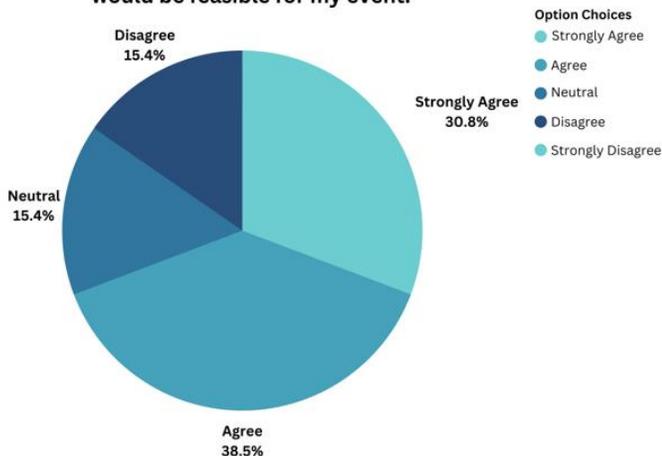
I think more training, education & awareness are needed.



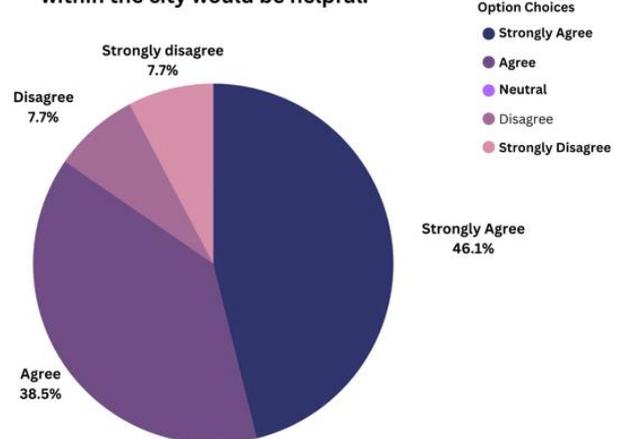
In your event planning tasks, is waste management a...



Conducting a waste audit would be feasible for my event.



A website dedicated to event planning within the city would be helpful.



The most intriguing variable within this research group was a planner who did not believe in recycling due to his past observations with events. Through a phone interview, the planner made claims that regardless of his waste management plan, it is always approved despite not having recycling bins. In the past, the planner has seen both recycling and garbage hauled away together in the same truck making them believe that recycling efforts are inefficient and unimportant. It was also mentioned that they believed it was impossible to police the public to recycle as the majority of event participants do not spend much time sorting their waste.

## **3.2 WASTE MANAGEMENT STAKEHOLDERS**

Responses from this research group were focused on logistical issues, contamination, and public education. Although there was a total of three participants, one participant mistakenly filled out the event planner questionnaire. This participant's responses were not included in any of the results above or below but were considered in the formation of the recommendation section. Responses within this group were not illustrated in a graph as there was not much quantity or overlap to be coded into any one category. Each participant, instead, provided their own perspective on the challenges they encountered with waste management within the event industry.

These responses were surprisingly similar to the event planners. Challenges such as the unpredictability of waste volume, the improper sorting of waste by event attendees and the large amounts of contaminations were similar reoccurring themes that suggested a perceived lack of control over the outcome of their waste management due to the behaviour of event attendees. This reinforces the notion that public education and awareness should be a high priority where its effects could trickle down into the different levels of responsibility and management and alleviate some of the challenges being faced from the operational level.

This similarity in responses communicates that all stakeholders within this industry have an incentive to aid the City in broadening the waste knowledge of the community through different initiatives, campaigns and events. Exposure to the same information (e.g., proper waste sorting within the City of Toronto guidelines) through different formats and settings over a longer period may eventually make it easier for events to divert more waste in the future as it becomes common knowledge. This implies that the City needs to set requirements, best practices, and targets within the event industry to ensure proper alignment amongst all stakeholders and to provide guidelines for innovation in the right direction.

Since challenges were similar between the Event Planner and Waste Management Stakeholder group, it was not surprising to see the connection between suggested recommendations. Fines and inspections were popular mentions between both research groups indicating that requirements and penalties when failing to comply would allow the prioritization of waste management within all levels of operation.

A comparative analysis of the two research groups urges the City to play a bigger role within the event industry to promote sustainable event management. Enforcement, inspections, penalties, more infrastructure resources, funding and assistance with tracking and monitoring were key takeaways that may unite all stakeholders to progress the goals of sustainability and ultimately that of the City's.

### **3.3 EVENT ATTENDEES – FOCUS GROUP**

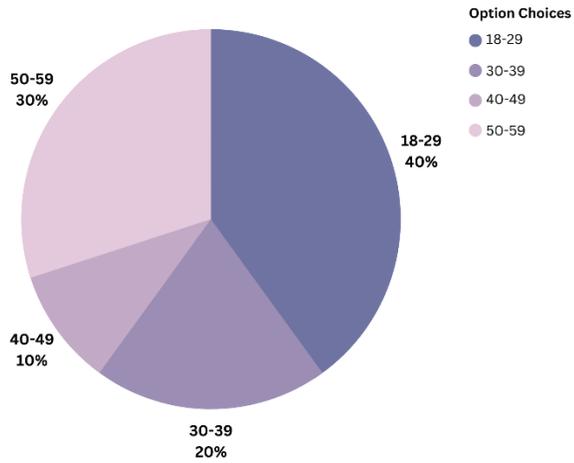
Results for the focus group consisting of 10 eventgoers were summarized and visualized in word clouds to portray the overall sentiments and feedback received for each question. Some of the responses within each question were not directly related nevertheless still purposeful and relevant to the individual.

Word clouds were chosen to illustrate the essence of the conversation and to ensure that everyone's feedback was considered regardless of the question.

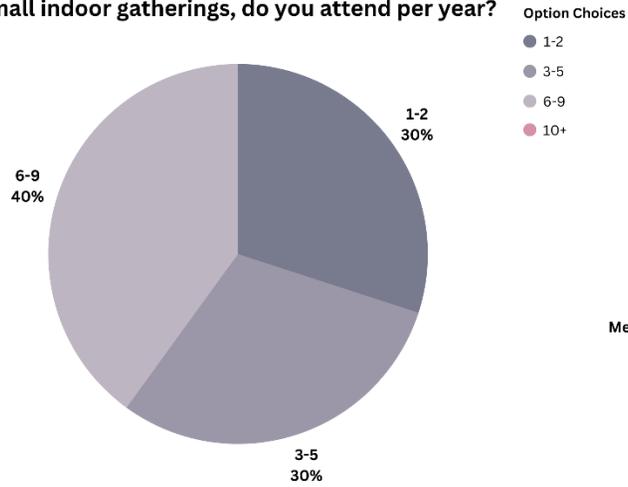
Results of the pre-interview survey show a favourable attitude towards environmental initiatives which was reflected in the discussions of both focus groups. Although there were two distinct focus groups, responses were surprisingly very similar in both attitude, information, and consensus (see result 7). Responses from questions during group discussions are illustrated subsequently (see result 8).

Result 7

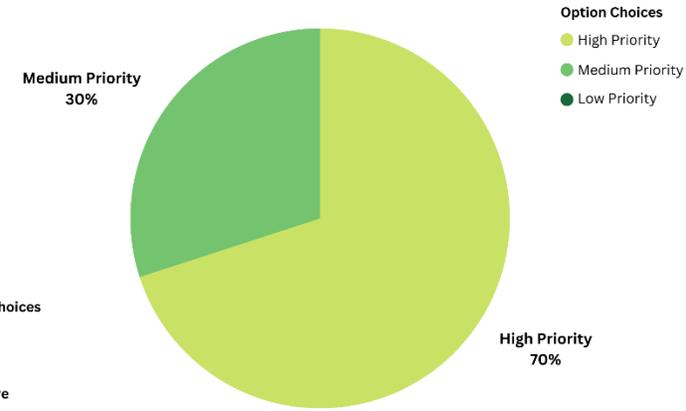
Age Group of Participants.



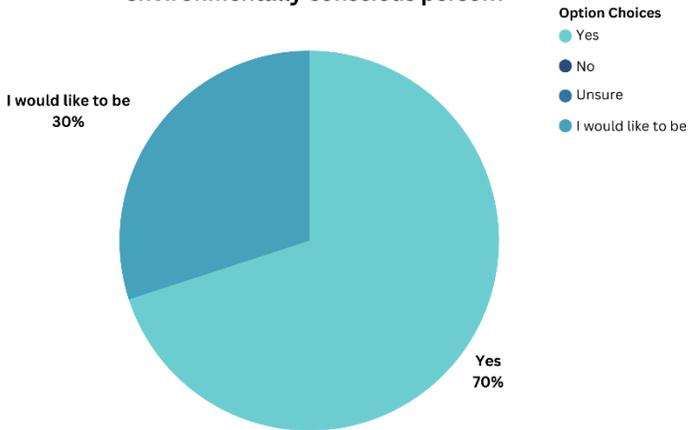
On average, how many events within the City, not including small indoor gatherings, do you attend per year?



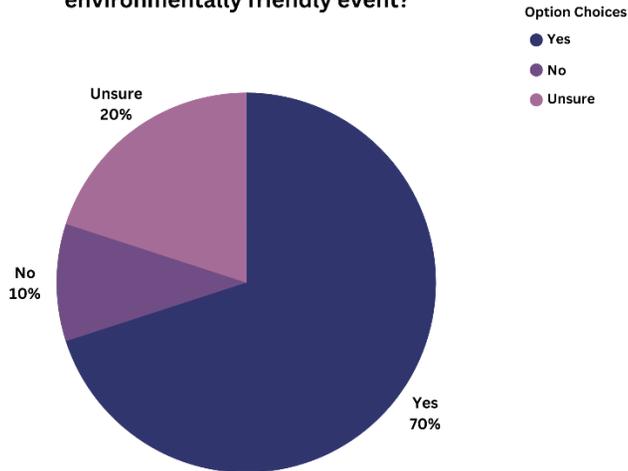
Should waste management be ...



In general, do you think you are an environmentally conscious person?



Would you consider paying more to attend an environmentally friendly event?



Question: Think back on past experiences, what were some environmental initiatives that had a long-lasting effect on you?

**Water Refill Stations** Waste Bin Overflow  
Reusable Water Bottles **Low Priority** Paper Straws  
No Single-use Plastic Communicate Impact  
Accessibility **Reusable Packaging**  
Conscious Driven Decisions Metal Straws Fee-encouraged Behaviours

Question: Were you ever skeptical on certain environmental initiatives at events?

**Questionable Impacts** Inadequate Waste Bins  
Confused **Lack of Information** Insincere  
Complicated Concerned  
Lack of Consistency Regulations Performative Statements

Question: What would be most efficient in building awareness and education?

**Announcements**  
**Open Communication**  
Simplified Signage Intuitive Bins

Question: From your experience, do you think that events have been doing a good job at managing their waste?

**Fair** Afterthought  
Concerned **Poor** Dirty  
Hygiene and Safety  
**Disappointing**

Question: How should events be held accountable?

Prescriptive Requirements Mandate Reuse  
Public Commitment Environmental Plan  
Waste Report Enforcement Waste Prioritized

Question: What changes would you ideally like to see, if any?

Sustainability Certification Social Media Campaigns  
Zero Waste Leave Content Competitive Advantage  
Education Gamified Announcements Leadership

Question: Can you recall a specific moment where it made you think “oh crap, this is a lot of waste” and how did it make you feel?

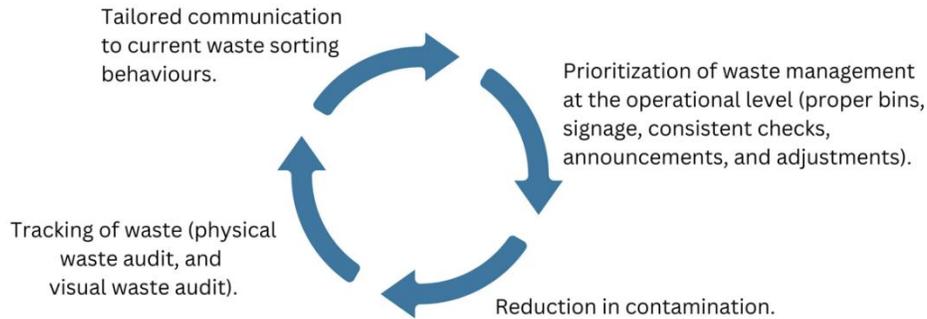
Grimy Disappointed  
Unpleasant Discouraged

Specific responses from individuals will be elaborated in the following section to further reinforce the recommendations put forward and the explanation for their purpose.

Similar responses between all three groups express how there is a common interest and goal to divert more waste from the landfill. Each research group alluded to some perceived lack of control over their role which could be associated to the recurring theme of uncertainty of options and lack of knowledge. It may also be difficult for all three groups to be consistent in their sustainability efforts when there is no connecting line of communication to arrive at a consensus. The prioritization of waste management at the operational level and the communication of proper waste sorting seems to be the cycle that needs to be consistently reinforced for greater improvements to be seen (see figure 8):

Figure 8

### Feedback Loop of Continuous Improvement for the Event Industry



## RECOMMENDATIONS

As shown throughout this research paper, the event industry plays an integral role within the City of Toronto, impacting greatly its culture, economy, and the environment. To synthesize the Zero Waste guiding principles, framework, and the responses of research participants, I recommend the investment of further resources into an interactive online website dedicated to all things event planning that uniquely fosters collaboration, innovation and includes methods of accountability for all events within the City of Toronto.

A website with all relevant and up to date information related to hosting a sustainable event within a particular host city has never been made before except for a few pages embedded as a subsection within an already existing governmental website.

This lack of information places the onus on the event planner to do additional research where the field of topic may not be necessarily familiar or easily understandable. The knowledge and best practices they receive may stem from a local organization or group advocating for sustainable events, but it may also originate from other third-party organizations or groups from other cities and countries where the waste regulations are not entirely the same as Toronto's.

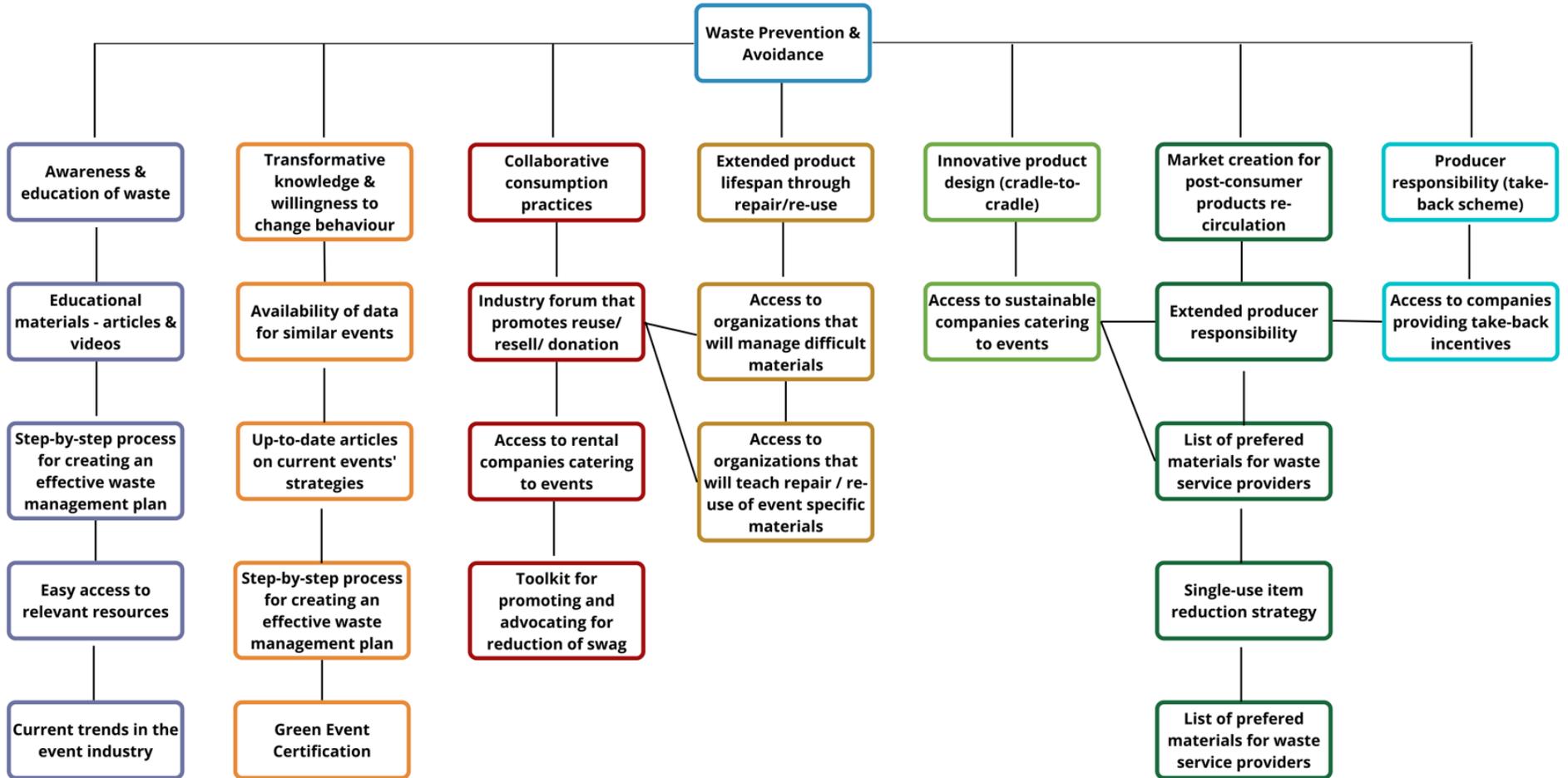
In addition, it is often a common practice for organizations hosting an event to outsource event planning services from those outside the region based on their preferred event planning agency. A planner who does not live within the city of Toronto may not understand that there are slight differences between their own regional waste regulations and that of Toronto's or even slight differences between the cities in the Greater Toronto Area unless they were exposed to or have been told otherwise.

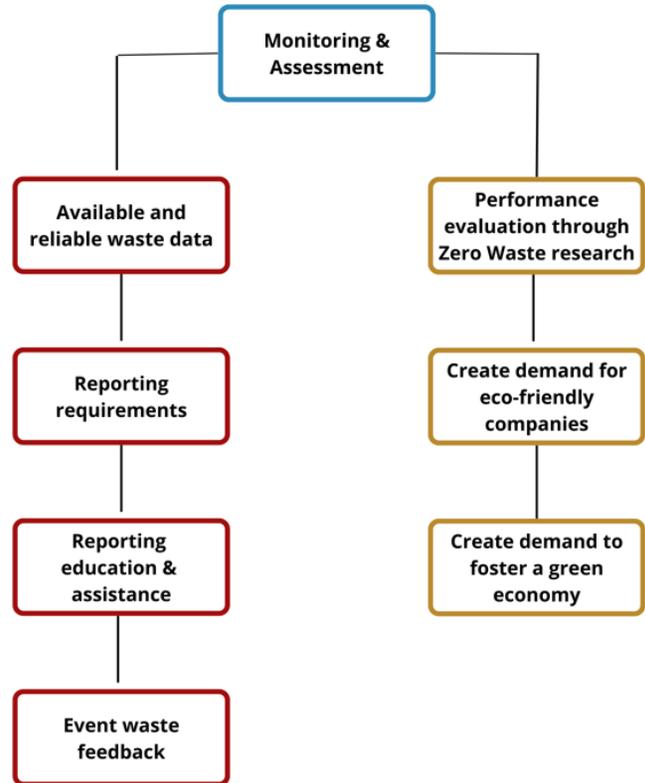
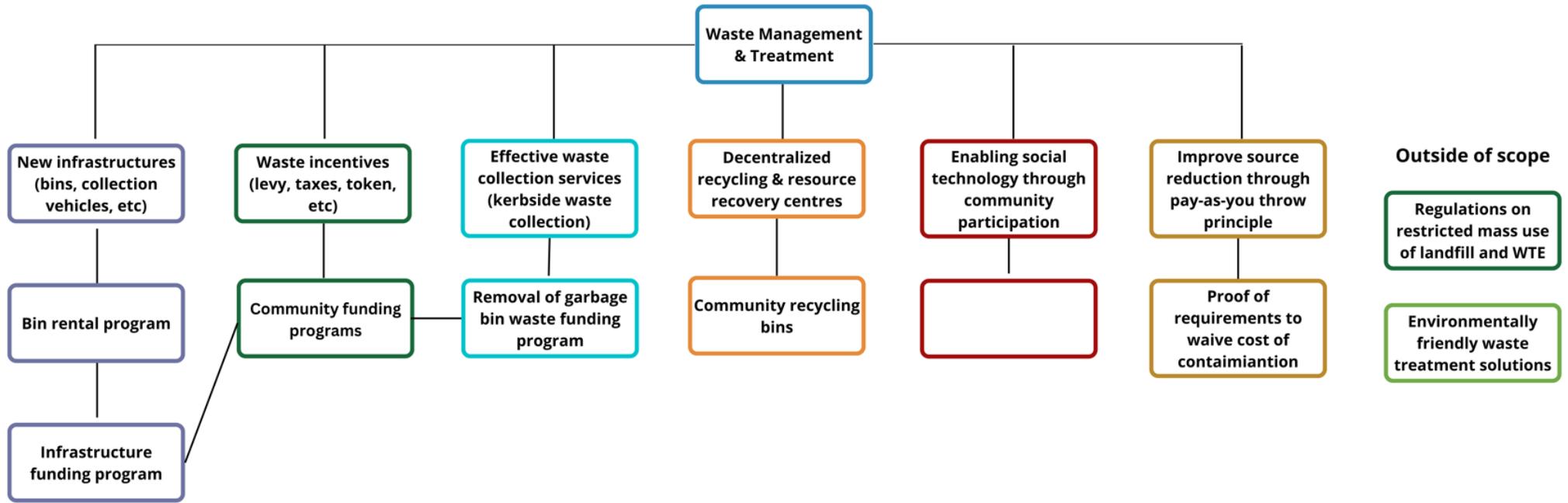
By incorporating all the principles of the Zero Waste guidelines and framework, Graph 1 shows how this website will have the ability to foster collaboration, improve education and awareness, disseminate educational materials and content, provide discounts and incentives, create access to sustainable companies, organizations, and networks, provide advice, support, and even become a platform for stakeholders to stay updated on current industry trends and strategies.

The first row of the graph outlines the phases in Zaman's Strategic Zero Waste Framework. The second row lists out the strategic elements associated with each phase along with important ingredients listed vertically that will be included on the website.

Figure 9

### Zero Waste Framework Applied within the Event Industry





To simplify, these ingredients can be further categorized into 4 subcomponents: Subcomponent # 1 – Awareness and Education, Subcomponent # 2 – Incentives and Discounts, Subcomponent # 3 – Collaborative Forum and Subcomponent # 4 – Accountability.

## **4.1 SUBCOMPONENT # 1 – AWARENESS & EDUCATION**

The first subcomponent of the website related to awareness and education should be available and accessible to all planners looking to host an event in public spaces within Toronto. It will include information, guides, checklists, document templates, and links to where everything needs to be submitted and whom to contact. The information provided in this section will be what is currently available on the City of Toronto’s website plus additional information related specifically to hosting a sustainable event such as:

- The importance of a sustainable event and what is involved.
- How a sustainable event can be a competitive advantage from cost effectiveness to brand development.
- Educational materials for volunteer and staff training
- How to create an event sustainability policy with examples
- Updates on policies and regulations pertaining to the event industry in Toronto, Ontario, Canada
- Lists of various waste contractors in the city, what they can take and cannot take, and the processing facility locations of each waste stream
- Ideal materials to use that are high in reuse, recycling value and high in compost quality for events
- Step by step process for creating an effective waste management plan (pre-planning and post-planning questions)
- Different types of waste bins used by different events all over the world

- Case studies of various Toronto events' successes and improvements and sustainability strategies
- Case studies of various events' leading the way in the event industry
- Current hot topics/trends
- Data of similarly sized events and purpose (ex: number of participants, location, number of recycling bins, number of organic bins, number of garbage bins, number of volunteers, weight of each stream, and waste diversion rate) (only possible if component # 4 – accountability is successful)

Educational materials communicated in various formats for different learners will ensure that all event planners planning an event in Toronto have the basic knowledge needed to take action toward a hosting sustainable event. These various informational resources, which can continue to grow and be adaptative, year-over-year, can fulfil the educational gap that many of the interviewees are experiencing, especially when these various types of resources are often not included within curriculum or seldom a required component. These bullet points are only small additions to bring Toronto's sustainable event information up to par with other cities across the world.

**Example – City of Columbus, Ohio (SWACO, n.d.)**

The City of Columbus, Ohio, created numerous resources where input came directly from event planners within the county. The [Event Waste Reduction Best Practices](#) list out a series of recommendations from planners within different operations of the event such as communication, waste infrastructure, clean-up, and a frequently asked question guide. This document opens with the understanding that these recommendations stem from events within the range of 7,000 to 450,000 attendees, suggesting to planners that host events outside of this range that adjustments may be needed. Their more detailed [Green Event Guide for outdoor events](#) includes practical information such as the recommended number of recycling and trash containers needed per number of attendees, the distance

of container placement, various sustainability positions and their duties, which environmental organizations they can partner with to provide guest education and a series of resources for effective communication (City of Columbus, n.d.). The City of Columbus is an example of providing transformative knowledge created through collaboration that can allow planners to feel more confident in taking action.

**Example – Alameda County (StopWaste, 2007)**

The [Alameda County](#) partnered with StopWaste to create a comprehensive [Special Events Best Practices Guide](#). Along with all the important educational knowledge needed for hosting a sustainable event, this guide provides resources that planners can use to be more efficient with their waste management planning. These resources include a suggested event recycling timeline, recycling considerations for different types of events, and a post-event recycling worksheet. Most notable within this guide is the availability of numerous success stories that are the result of the Alameda County AB2176 legislation, requiring large events and venues to report on their progress with waste reduction to the state (further elaborated in Subcomponent # 4 – Accountability). The availability of these success stories educates planners on the potential implemented strategies and their impact and allows them to recognize current innovations and trends within the industry.

**Example of Success Stories**

<p>At Oakland’s <b>We the Planet festival</b> held in November 2004; a 98% diversion rate was achieved. Over 4,000 attendees, vendors and staff generated 1,028 pounds of waste but sent only 20 pounds to the landfill. Through aggressive source reduction, composting and recycling efforts on the part of organizers, volunteers and musicians, garbage cans were largely empty at the end of the four-hour event.</p>	<p>The Ohlone College <b>Flea Market</b> hosts between 40 and 200 vendors at their monthly events. By implementing a “pack it in, pack it out” policy for vendors, trash has been significantly reduced, saving thousands of dollars every year in collection costs.</p>	<p>At the <b>Whole Earth Festival</b> (Davis, California), vendors were charged a \$100 deposit to encourage compliance with a policy requiring use of recyclable or compostable materials. Paper cups and #1 plastic cups were used for beverages. Biodegradable bags and utensils were supplied at cost for vendors, costing between \$20 to 30 per vendor. Food scraps, biodegradable bags and utensils were collected for composting. Although most of the festival trash</p>
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		was brought in from the outside, the waste diversion rate was 81%.
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**Example –Scotland (ZeroWaste Scotland, 2019)**

The ZeroWaste Scotland partnered with various organizations including the Government of Scotland to create a [comprehensive sustainable event guide](#) that tackles various aspects of an event, from energy and procurement all the way through to transportation and waste. This document is highlighted as an example of the ideal communication guidebook due to its outline of information, starting from the country’s sustainability goals, how that relates to events, and the actions that can be taken:

“Scotland has an ambition to reduce food waste by 33% by 2025 and we all need to play a part in achieving that... as an organizer, controlling supply chains and reducing waste has bearing on an event both financially and environmentally... it is important to remember when choosing food supplies, to ask where and how food was grown and processed... food miles can reduce air pollution and carbon emissions during transportation... alternatively use Fairtrade standards...” (ZeroWaste Scotland, 2019, p.11)

By understanding what planners want, resources can be created to maximize the impact of information being downloaded. In the interviews conducted, some planners stated that they wanted the City of Toronto to set better expectations for events so that they may have proper guidance. These could come in the form of rules, policies, requirements, and standards that will not take hours to read so that they can have better direction and a target to aim for. Information provided under subcomponent # 1 for the website can take the approach of ZeroWaste Scotland’s guide by including the City’s sustainability goals in bite-sized relatable formats.

**Case Study – City of Vancouver (City of Vancouver, 2017).**

According to the Event Requirements and Support by Host City chart mentioned earlier in the literature review, the City of Vancouver is leading the way within sustainable event management in Canada. Along with the many Zero Waste tools and resources easily accessible to planners, their [Green Event Planning Guide](#) includes a list of local suppliers and service providers that provide sustainable options within the event industry. This is another example of transformative knowledge that allows planners to take action in alignment with the City's sustainability goals and creates the demand to foster a strong green economy.

Interviewed planners explained that many of them do not have the time or capacity to do additional research, especially those in the non-profit sector where event planning is often not their main role. These time-saving resources could make a difference in whether a planner decides to initiative a sustainable proposal and/or program. The departments of the City of Toronto already know of the various businesses and organizations that would be fitting for this list. It would take less time on their end to put together at minimum a list of sustainable local suppliers and service providers as opposed to each planner attempting to replicate the effort. In addition, the work can also be outsourced to Destination Toronto, the City's Destination Marketing Organization that is already well acquainted within Toronto's event industry.

It is notable to mention that the USDA Forest Service created a promising section within their website titled "[Greening Your Events](#)" which included several tabs with information, tools for calculating your event's transportation GHG emissions, related policies, success stories, and contact information (USDA, 2023). Unfortunately, many of its links to resources were missing or broken and its contact email available only to those within the organization. This barrier experienced repeatedly during this research is why this sort of information needs to be prioritized along with a dedicated member or team ensuring its accessibility to prevent frustration and or discouragement for planners seeking the knowledge. The city prioritizing the minimization of waste means that they must also prioritize the currently wasteful event

industry simultaneously. A staff member or team dedicated to creating content and maintaining content is an important part of the process that will allow it to achieve its Zero Waste goals.

## **4.2 SUBCOMPONENT #2 - INCENTIVES**

This subcomponent allows event organizers to unlock discounts from local businesses and suppliers that provide materials and products within the event industry. Event organizers who wish to gain access to the incentives will need to create an account within the website and undergo a short, concise, and interactive training modules mixed with videos, images, examples, and quizzes that includes all the information in the first subcomponent to ensure that they have the base knowledge necessary to host a sustainable event and have the tools necessary to make sustainable choices.

After their one-time introductory training, they will have access to discounts and take-back programs from local businesses and suppliers that offer eco-friendly products or products that have high recycling value. This space within the website allows local green companies to promote themselves and their products while also offering an incentive for the event organizer to purchase from them. Companies will have the choice of whether they would like event organizers to “unlock” their incentives by first watching a short promo video or doing a short pop quiz on their products. This allows them to guarantee that event planners know exactly why their products or services are ideal and provide them the space to convey their competitive advantage (see figure 10).

Figure 10

### Example of Incentives Page

<u>Company Logo</u>	<u>Description</u>	<u>Click on logo to unlock incentives</u>
	Provides plastic-free take-out containers that are professionally cleaned.	
	Provides bottled water that are 100% made from recycled water bottles.	
	Wholesaler that specializes in eco friendly packaging.	

This subcomponent can include waste contractors where they will be provided with the space to communicate to planners exactly the type of materials they prefer to recycle or compost and the type of materials that negatively affect their facilities.

Additionally, if there are any updates within regulations and guidelines related to the event industry, planners will be prompted to watch a video related to the update before proceeding to the incentive page. This ensures that event planners are always up to date in relation to the waste management sector in Toronto.

#### Case Study – Oceanic Global (Oceanic Global, 2023)

The Oceanic Global created a [Blue Standard](#) for various industries that connects vendors, sponsors and third-party suppliers that have a focus on sustainability to clients. These vetted businesses go through a badge verification system, bronze, silver, and gold that allows businesses to communicate their sustainability achievements and offerings. These vendors are approved by the Oceanic Global's

scientific advisory board and provide clients with alternatives to products that threaten the planet and the reassurance that these companies are truly doing what they say they are doing within sustainability. Additionally, the program offers clients purchasing deals and discount codes with around 25% of its vendor database creating a cost-effective eco-friendly solution for events.

**TOS SUSTAINABLE VENDORS**

Oceanic Global’s network of sustainable vendors includes over 200 brands across 20+ countries.

*\*Vendors approved by Oceanic Global’s scientific advisory board.*

*\*Oceanic Global has secured purchasing deals and discount codes with around 25% of its vendor database.*

Interviews with planners have shown that they want to move toward greener products, but the cost is always a barrier especially for non-profit organizations. This subcomponent will list all the available eco-friendly products available within Toronto with potential economic incentives such as discounts to move toward greener products. It will also allow companies to negotiate take-back terms for the end-of-life of their products, reducing the cost associated with procuring or extracting raw materials while simultaneously also reducing the waste management costs typically incur by events. An example could be if an event chooses to give water bottles at its event, the planner can partner with Ice River, an Ontarian company, that makes its water bottles from 100% recycled water bottles, to capture all the used water bottles from the event which can then be picked up by Ice River. This reduces the recycling fee for the planner but also reduces the procurement cost of Ice River for their product material. Conditions can be created to prevent contamination of the material intended for a take-back program such as having bins

specifically there to capture water bottles only, with the appropriate signage. Announcements can be made of this initiative to let attendees know that all water bottles used during this event will be 100% recycled by Ice River to receive maximum participation. This success was seen in [Ballina Races, Australia](#) when they announced throughout their races, “the cup you are drinking out of is recyclable”. This simple effort resulted in two full 3 cubic meter sized bins of uncontaminated PET cups, positively increasing their waste diversion (The Department of Environment and Conservation NSW, 2007).

The benefits of these partnerships align with responses from the focus group which showed that event attendees want to make sustainable choices and want to be reassured that they are not being tricked or “greenwashed”: “Yes, there are recycling bins but is this material actually being recycled?... when companies release statements sometimes it is very performative”. The outcomes of the hypothetical Ice River partnership would not only divert materials away from the landfill but positively increase brand reputation of both parties involved.

#### **Case Study – Glasgow Coffee Festival, City of Glasgow (KeepCup, 2019)**

The Dear Green Coffee organization partnered up KeepCup a reusable cup company to create the first [disposable-cup free coffee festival](#) in the City of Glasgow. By notifying attendees prior to the event that the festival would be free of disposable cups, they found that 30% of attendees brought their own reusables. Cup washing stations were provided throughout the event and KeepCups were available to buy or borrow through a deposit scheme. Through this partnership, the two-day event saved an impressive 24,560 single use cups from ending up in the landfill. This event created huge brand awareness for KeepCup while also reducing the waste hauler fees of the festival.

#### **Case Study – Summerfolk Festival, Owen Sound, Ontario (SummerFolk, 2023)**

In 2018, Busch Systems and the Grey Bruce Sustainability Network sponsored the Summerfolk festival to begin its “greening of the festival”. In return for the festival’s refuse data and case study

opportunities, Busch Systems provided all the suppliers needed to conduct a waste audit for the festival, a green team, and an educational waste sorting tent. This partnership resulted in Summerfolk Festival's 3-year waste reduction plan with continued resource support from Busch Systems to implement new initiatives year-over-year in return for sponsorship awareness.

These three case studies exemplify the mutually beneficial potentials and vision of this subcomponent. It emphasizes and focuses on creating partnerships within the green economy as well as creating demand for eco-friendly products. Planners can be reassured that companies that are listed on this section of the site have been researched and analyzed to ensure that there is no greenwashing and that materials can be recycled or composted within Toronto's waste management system. This removal of doubt can provide planners the confidence to be able to speak about their sustainable initiatives without agonizing over the potential public scrutiny that may harm a brand's reputation.

### **4.3 SUBCOMPONENT #3 – COLLABORATIVE FORUM**

The third subcomponent provides event planners that have completed all the training modules access to a forum where they can share their experiences, challenges, successes, failures, and recommendations with hosting an event in Toronto. This will allow for event planners to be able to help each other in creating successful sustainable events through knowledge sharing and to continually improve base off each others' experiences rather than repeat similar mistakes to create a collaborative industry.

Interviews with event planners have shown that they want to know what others in the industry are doing for their events and what similar resources and strategies they can use and implement within their own events. This forum can allow planners to ask questions to each other, to have more tailored information from someone else's actual experience and especially connect new planners or smaller organizations to

the industry when expensive networking conferences may be out of their financial means. Within the City of Columbus, Ohio's Zero Waste Special Event Planning Guide, quotes from planners are outlined throughout to incite action or provide advice: "one of the biggest challenges we face when hosting a Zero Waste event is recruiting volunteers to oversee waste stations throughout the event. You can have the best waste station signage in the world, but without dedicated volunteers you're likely going to deal with contamination in your waste streams" – Kristin Hall, Zero Waste Northeast Ohio (Ohio Environmental Protection Agency, n.d.) These are the types of knowledge sharing that would create deeper and more meaningful conversations within the event industry.

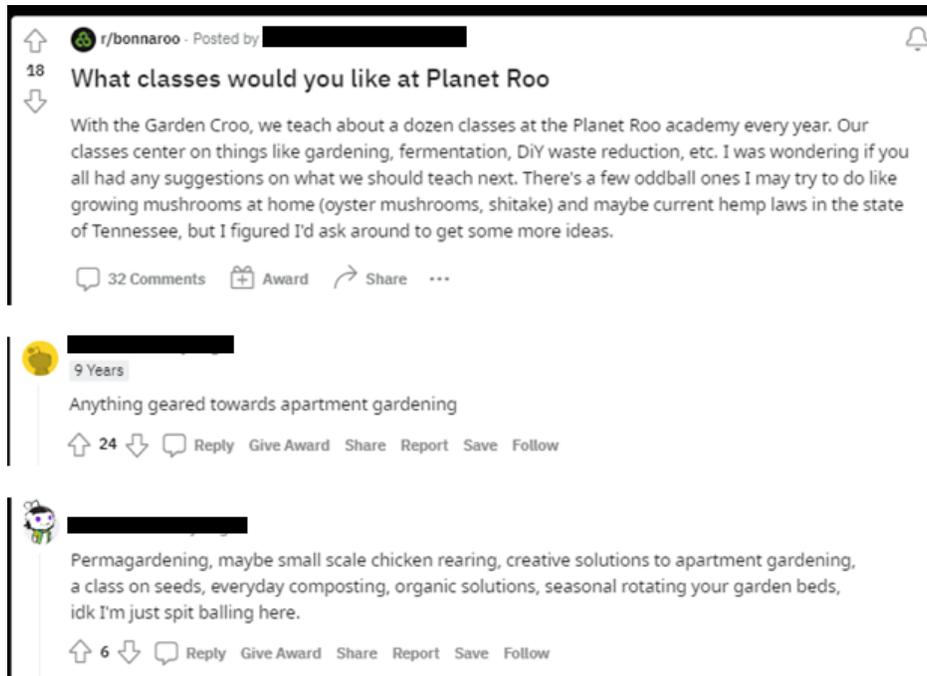
This forum can also provide a space for event planners to resell or donate excess materials and/or products after an event to other planners to further reduce the amount of waste, recycling, and compost. Planners would have the space to share on how they managed difficult to recycle materials, which organization or association can take it or provide recommendations on grass root organizations that can upcycle the material (ex, the Edmonton Convention Centre outsourcing event vinyl banners to be upcycled into reusable bags). This forum can become an essential component to transforming this wasteful industry into one that promotes reuse, repair, resell and recycling within its operations.

### **Case Study – Bonnaroo Music and Arts Festival**

Bonnaroo is an American annual four-day music festival heavily focused on sustainability and has its own forum on Reddit, a community run web forum filled with sub communities called subreddits. Bonnaroo's subreddit is followed by 86.2k active members that post various questions, comments, and updates about the festival. Not only do festival attendees post their questions and help each other brainstorm (ex: alternative to single use bottles) but the organizers of the festival are also seen posting to engage visitors, volunteers, and others on their green initiatives.

Figure 11

### Boonaro Forum on Reddit



These forums allow opportunities within the subcommunity to share their knowledge, to build community, and to collaborate.

## 4.4 SUBCOMPONENT #4 - ACCOUNTABILITY

Along with education and awareness, incorporating a method of accountability is just as important to complete the feedback loop of continuous improvement. The City needs to require post-event data similar to the City of Vancouver for the purpose of creating additional educational materials that are up to date and relevant, case studies of various events, and provide data to inform on the progress of the industry to various stakeholders. Additionally, the City needs to ensure that there is an open line of communication within this final process of an event so that educated staff can provide the necessary feedback.

Currently the City tracks waste diversion numbers of events who use their solid waste management services. But how does the City keep tabs on the many other events and festivals within the city? The data they currently track only shows an incomplete picture of the impact of the event industry and ultimately the city's overall waste generation number as it only reports on the amount that it manages. This means that the 900,000 tonnes of waste that the city reports it manages does not represent the entire number of waste generated from the City. For Toronto to know that it is on track to divert 70% of its waste away from landfill, it must start tracking the various industries that are using private waste haulers for a complete picture.

Furthermore, the City needs to mandate events and festivals to publicly commit to sustainability targets that align with the city's sustainability goals. This will ensure that sustainability is prioritized at all levels of decision making within the host organization and minimizes the risk of defunding sustainability initiatives due to lack of capacity. Interviewed planners expressed that it has been difficult to advocate for sustainable alternatives within their event when the issue of "balancing the budget" often dominates the conversation. Mandating sustainability targets ensures that sustainability is at the forefront of decisions, especially procurement and creates a form of public accountability where failure can result in negative perceptions of the event or festival reputation. These requirements put a high importance on the success of the previous components so that planners may receive the right resources and support.

### **Case Study – State of California (StopWaste, 2007)**

In 2004, California passed [AB 2176 into law](#) requiring all large events and venues to report on their post-event waste management. The information must include details of the event, description of the waste, amount disposed and diverted, description of waste reduction, reuse, and recycling programs. Additionally, the event planners must update their waste management plan every two years by consulting with waste haulers, local organizations, local food banks, and community conservation corporations.

## Case Study – City of Vancouver (City of Vancouver, 2017)

The city of Vancouver requires all events to not only create a Zero Waste event plan but to also submit their post-event data. It encourages planners to engage with their stakeholders post-event to evaluate the green event goals and invite feedback on how targets can be better reached for subsequent years. The post-event form includes data from vendors, volunteers, waste disposed and diverted, water stations, green energy, green transportation, and strategies used.

## STUDY LIMITATIONS

This research had several limitations that should be noted. Most of the articles, reports and strategies read and analyzed within this research were dominantly based within western cities where English was the primary language used to convey information. Although the information analyzed is relevant to the challenges experienced by Toronto's waste management system and its event industry, it would have been interesting to compare other resources from cities and organizations from the East and South where cultural beliefs, values and practices are significantly different from the West. This comparison could have yielded interesting insights in how waste is viewed and valued and whether sustainability initiatives also differ. Named as the most multicultural city in the World by BBC Radio, Toronto could benefit from this comparison where strategies could be tweaked to incorporate various cultures.

Additionally, a limited sample size in all three research groups hinders the ability to gain a wider overview of the event industry network in order understand better how those within this network are communicating, coordinating, and connecting amongst themselves to overcome the current challenges and to innovate. A bigger sample size in all three research groups would also provide a clearer indication of the most problematic and recurring issues so that tailored solutions could have a bigger impact.

Suffice it to say, this research started during the peak period of COVID-19 where the event industry eerily halted to a stop. This may have been one of the reasons for a low response rate in the sampling period, but it also affected the researcher's ability to observe directly on the field on how eventgoers were interacting with current waste management systems at events and identify further gaps in the planning and implementation phases. With bigger sample sizes and direct observational notes, future studies may be able to identify other challenges not mentioned here, create case studies of actual Toronto events with successes and opportunities for improvements and investigate further the connection between culture and the perception of waste within the event industry.

## CONCLUSION

The event industry is a huge contributor to the amount of waste that is transported to the Green Lane landfill which is expected to reach full capacity in 2035. Toronto's long-term waste strategy includes many strategies and targets to extend the landfill's lifespan but fails to include the many special events that rely on their waste management services. Events and festivals can be an important source of influence over how event attendees interact with waste and learn about proper waste sorting practices, potentially inciting a ripple effect beyond the event space. Through proper awareness and education, event planners are the gatekeepers for the materials that enter their event to either be reused, recycled, composted, or disposed of. Unfortunately, there is a perplexed disconnect between what is being required by the city, the amount of information available and the implementation of event waste diversion strategies.

The lack of courses focused on sustainability within the event industry creates an onus on the event planner to seek additional certification or information on their own time. Through semi-structured interviews, insufficient education, communication, and resources were consistently mentioned in all

three research groups, suggesting that the city of Toronto needs to do more in transitioning this industry toward better sustainable practices. A comparison of major cities within Canada show that Toronto has many areas of improvements in regard to the requirements it places on its events, particularly within the area of accountability. Data collection and data analysis can be an important tool for the city to communicate impact to various audiences to continue progression towards the city's sustainability goals. The famous saying, you can't manage what you don't measure holds true for the event industry.

To advance the sustainability of events within Toronto, an interactive online platform is recommended that can be divided into four subcomponents to incorporate the principles and framework of Zero Waste. These components which delve into awareness and education, potential incentive offerings, the inclusion of a collaborative forum, and methods of accountability all further develop the strategic elements within a Zero Waste framework presented by Zaman and addresses waste generation at the very top of the Zero Waste hierarchy – rethink and redesign. A website that synthesizes all the most relevant and up to date information needed to host a sustainable event aims to empower event planners with transformative knowledge to reduce their barriers and increase their benefits. Case studies in each subcomponent strengthen this recommendation by portraying that this is not about reinventing the wheel. There are already successful strategies and case studies being implemented by various cities and organizations and these simply need to be made more accessible to planners who do not have the capacity to do their own research and to tailor these strategies to incorporate Toronto's local businesses and waste management system.

For this website to be successful, it is imperative that the City of Toronto takes ownership or works closely with a third-party organization for greater uptake, support, and authority. This must be the only source of event related information that the City provides where all event planners are guided to, to find the necessary information, links and forms. Otherwise, it may risk becoming one of the other ubiquitous informational websites, adding to the already apparent confusion amongst stakeholders.

If this website is properly maintained and updated regularly by a small team of passionate individuals – a small investment in comparison to the social and financial gains of the industry, it can eliminate reoccurring themes such as confusion, resource constraints, educational barriers, lack of partnership and support from other stakeholders, open multiple lines of communication within various levels of the Toronto's event industry.

This change in procedure and dissemination of information can set Toronto as a leader in sustainable event production where information can also be easily replicable and scalable to aid other cities and countries.

## REFERENCES

- Anthony. (2020, August 11). *How we can prevent recycling contamination " recycle BC - making a difference together*. Recycle BC. Retrieved from <https://recyclebc.ca/prevent-recycling-contamination/>
- BudgetTO. (2019, November 15). *Staff recommended 2020 operating budget 2020 - 2029 capital budget & plan*. Retrieved from <https://www.toronto.ca/legdocs/mmis/2019/bu/bgrd/backgroundfile-139998.pdf>
- C40 Cities Climate Leadership Group. (2019, June). *Why cities need to advance towards zero waste*. Retrieved from [https://www.c40knowledgehub.org/s/article/Why-cities-need-to-advance-towards-zero-waste?language=en\\_US](https://www.c40knowledgehub.org/s/article/Why-cities-need-to-advance-towards-zero-waste?language=en_US)
- Chalvatzaki, E., & Lazaridis, M. (2010). Estimation of greenhouse gas emissions from landfills: application to the Akrotiri landfill site. *GlobalNEST*, 12(1), 108–116.  
<https://doi.org/10.7287/peerj.preprints.2303v1/supp-1>
- City of Brampton. (2022, February 16). *Brampton Tourism Event Funding Program*. Retrieved from <https://pub-brampton.escribemeetings.com/>
- City of Calgary. (2023). *Event funding*. Retrieved from <https://www.calgary.ca/arts-culture/festivals/funding.html>
- City of Calgary. (2023). *Leading Calgary to Zero waste*. Retrieved from <https://www-dev.calgary.ca/waste/goals.html>

City of Calgary. (2023). *Planning a Festival or Event in the City*. Retrieved from

<https://www.calgary.ca/arts-culture/festivals/planning-support.html>

City of Calgary. (2023, April). *Festival and Event Manual*. Retrieved from [https://www.calgary.ca/arts-](https://www.calgary.ca/arts-culture/festivals/planning-support.html)

[culture/festivals/planning-support.html](https://www.calgary.ca/arts-culture/festivals/planning-support.html)

City of Columbus. (n.d.). *Green event guide*. Retrieved from

<https://www.swaco.org/DocumentCenter/View/1208/BMPs-Event-Waste-Reduction-Guide>

City of Edmonton. (2019). *The future of waste - Edmonton*. Retrieved from

<https://www.edmonton.ca/sites/default/files/public->

[files/documents/PDF/WasteStrategy\\_CR\\_5829\\_25YearWasteManagementStrategy.PDF](https://www.edmonton.ca/sites/default/files/public-files/documents/PDF/WasteStrategy_CR_5829_25YearWasteManagementStrategy.PDF)

City of Edmonton. (2023). *Neighbourhood event application form*. Retrieved from

[https://docs.google.com/forms/d/e/1FAIpQLSetHjz1W28gKkqHozUUCUfUGsZTXinBityWS2LfZ4vfj\\_-](https://docs.google.com/forms/d/e/1FAIpQLSetHjz1W28gKkqHozUUCUfUGsZTXinBityWS2LfZ4vfj_-)

[2hA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSetHjz1W28gKkqHozUUCUfUGsZTXinBityWS2LfZ4vfj_-2hA/viewform)

City of Edmonton. (2023). *WinterCity festivals and events grant program*. Retrieved from

[https://www.edmonton.ca/programs\\_services/funding\\_grants/wintercity-festivals-events-grant-](https://www.edmonton.ca/programs_services/funding_grants/wintercity-festivals-events-grant-)

[program](https://www.edmonton.ca/programs_services/funding_grants/wintercity-festivals-events-grant-program)

City of Hamilton. (2023). *City enrichment fund*. Retrieved from

<https://www.hamilton.ca/sites/default/files/2022-08/cityenrichmentfund-cef-general-fund->

[guidelines.pdf](https://www.hamilton.ca/sites/default/files/2022-08/cityenrichmentfund-cef-general-fund-guidelines.pdf)

City of Hamilton. (2023). *Solid waste management master plan*. Retrieved from <https://www.hamilton.ca/city-council/plans-strategies/master-plans-studies/solid-waste-management-master-plan>

City of Mississauga. (2022, October 14). *Cultural Festivals & Celebrations Grant Program*. Retrieved from [https://www.mississauga.ca/wp-content/uploads/2022/08/24105628/2023-City-of-Mississauga\\_Cultural-Festivals-and-Celebrations\\_Grant\\_Guidelines.pdf](https://www.mississauga.ca/wp-content/uploads/2022/08/24105628/2023-City-of-Mississauga_Cultural-Festivals-and-Celebrations_Grant_Guidelines.pdf)

City of Montreal. (2020). *Public Event Request*. Retrieved from [https://portail-m4s.s3.montreal.ca/pdf/2023\\_referenceguidecommunitygardens\\_cdn-ndg\\_va.pdf](https://portail-m4s.s3.montreal.ca/pdf/2023_referenceguidecommunitygardens_cdn-ndg_va.pdf)

City of Montreal. (2020, May). *Montréal, zéro déchet 2020-2025*. Retrieved from [https://ehq-production-canada.s3.ca-central-1.amazonaws.com/506d1813e780060c7eabf271332f0aa62f1d95e1/original/1598631939/PDGMR-Strategie\\_finale.pdf\\_986c40fc928b21545da8ecab354fbfc3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4KKNQAKIOR7VAOP4%2F20230504%2Fca-central-1%2Fs3%2Faws4\\_request&X-Amz-Date=20230504T002426Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=99ec465bb533e926ee652fc59fdd6b8a28363ee18934fc9539dbacea7d591bab](https://ehq-production-canada.s3.ca-central-1.amazonaws.com/506d1813e780060c7eabf271332f0aa62f1d95e1/original/1598631939/PDGMR-Strategie_finale.pdf_986c40fc928b21545da8ecab354fbfc3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4KKNQAKIOR7VAOP4%2F20230504%2Fca-central-1%2Fs3%2Faws4_request&X-Amz-Date=20230504T002426Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=99ec465bb533e926ee652fc59fdd6b8a28363ee18934fc9539dbacea7d591bab)

City of Montreal. (2023, January 20). *Support for festivals and cultural events*. Retrieved from <https://montreal.ca/en/programs/support-festivals-and-cultural-events>

City of Ottawa. (2023). *Major Arts, cultural festivals, Agricultural Fairs Programs*. Retrieved from <https://ottawa.ca/en/arts-heritage-and-events/funding-calls-and-opportunities/cultural-funding/major-arts-cultural-festivals-agricultural-fairs-programs>

City of Ottawa. (n.d.). *Event Guide*. Retrieved from

[https://documents.ottawa.ca/sites/documents/files/event\\_guide\\_en.pdf](https://documents.ottawa.ca/sites/documents/files/event_guide_en.pdf)

City of Toronto. (2015, January). *Application: Waste management plan for street events* - Retrieved from

<https://www.toronto.ca/wp-content/uploads/2022/03/8f6a-WMP-Template-Street-events-FINAL.pdf>

City of Toronto. (2023). *Solid waste reports & diversion rates*. Retrieved from

<https://www.toronto.ca/services-payments/recycling-organics-garbage/solid-waste-reports/>

City of Toronto. (2016). *Final Long Term Waste Management strategy*. Retrieved from

<https://www.toronto.ca/wp-content/uploads/2017/10/9803-Final-Long-Term-Waste-Management-Strategy.pdf>

City of Toronto. (2018). *Waste management diversion in parks for special events form*. Retrieved from

[https://www.toronto.ca/wp-content/uploads/2017/08/9923-PFR\\_wastediversionapp2014.pdf](https://www.toronto.ca/wp-content/uploads/2017/08/9923-PFR_wastediversionapp2014.pdf)

City of Toronto. (2021, November). *TransformTO Net Zero Strategy a climate action pathway to 2030 and*

*beyond*. Retrieved from <https://www.toronto.ca/legdocs/mmis/2021/ie/bgrd/backgroundfile-173758.pdf>

City of Toronto. (2023). *Reducing single-use & takeaway items*. Retrieved from

<https://www.toronto.ca/services-payments/recycling-organics-garbage/long-term-waste-strategy/reducing-single-use-takeaway-items/#:~:text=The%20Program%20encourages%20businesses%20to,takeout%20containers%20and%20beverage%20cups>

City of Toronto. (n.d.). *Overview of current system*. Retrieved from <https://www.toronto.ca/wp-content/uploads/2018/01/972b-long-term-waste-strategy-overview-curent-system.pdf>

City of Vancouver. (2017, March 17). *Green Events Planning Guide*. Retrieved from <https://vancouver.ca/files/cov/green-events-planning-guide.pdf>

City of Vancouver. (2022). *Special event policy* . Retrieved from <https://policy.vancouver.ca/ADMIN031.pdf>

City of Vancouver. (2023). *Community and Social Service grants*. Retrieved from <https://vancouver.ca/people-programs/community-grants.aspx>

City of Vancouver. (2023). *Zero waste 2040*. Retrieved from <https://vancouver.ca/green-vancouver/zero-waste-vancouver.aspx>

City of Vancouver. (n.d.). *Special event permitting handbook*. Retrieved from <https://vancouver.ca/files/cov/special-event-permitting-handbook.pdf>

City of Winnipeg. (2011). *Waste Management Strategy*. Retrieved from <https://clkapps.winnipeg.ca/DMIS/DocExt/ViewDoc.asp?DocumentTypeld=2&DocId=3673>

The Clean Sea Campaign. (2018, May 7). *10 ways the world of sport is tackling plastic pollution*. UNEP. Retrieved from <https://www.unep.org/news-and-stories/story/10-ways-world-sport-tackling-plastic-pollution>

Cobus, K. R. (2019, December 5). *Event sustainability: The evolution of a wasteful industry*. Retrieved from <https://www.origyn.ca/news-environment/event-sustainability-the-evolution-of-a-wasteful-industry/>

Cotta, D. (2021, August 4). *New research calls out single-use waste at events*. Cision PR Newswire.

Retrieved from [https://www.prnewswire.com/news-releases/new-research-calls-out-single-use-waste-at-events-](https://www.prnewswire.com/news-releases/new-research-calls-out-single-use-waste-at-events-301348345.html#:~:text=The%20average%20stadium%20that%20hosts%20300%20events%20annually%20uses%205.4,63.75%20tons%20of%20plastic%20waste)

[301348345.html#:~:text=The%20average%20stadium%20that%20hosts%20300%20events%20annually%20uses%205.4,63.75%20tons%20of%20plastic%20waste](https://www.prnewswire.com/news-releases/new-research-calls-out-single-use-waste-at-events-301348345.html#:~:text=The%20average%20stadium%20that%20hosts%20300%20events%20annually%20uses%205.4,63.75%20tons%20of%20plastic%20waste)

Danthurebandara, M., Nelen, D., Van Passel, S., & Tielemans, Y. (2017, April 25). *Environmental and socio-economic impacts of landfills*. Retrieved from

[https://www.researchgate.net/publication/278738702\\_Environmental\\_and\\_socio-economic\\_impacts\\_of\\_landfills](https://www.researchgate.net/publication/278738702_Environmental_and_socio-economic_impacts_of_landfills)

Environment and Climate Change. (2021, December 30). *Government of Canada moving forward with*

*banning harmful single-use plastics*. Retrieved from <https://www.canada.ca/en/environment-climate-change/news/2021/12/government-of-canada-moving-forward-with-banning-harmful-single-use-plastics0.html>

Environmental Protection Agency. (2023). *Greenhouse gas equivalencies calculator*. Retrieved from

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Event Academy. (2020). *Industry and Trend Report*. Retrieved from TR2020-webready.pdf

(eventacademy.com)

eventIMPACTS. (n.d.). *Why measure environmental impact?* Retrieved from

<https://www.eventimpacts.com/impact-types/environmental>

Givner, H. (2020, December 10). *The road ahead: What's in store for the events industry in 2021 & Beyond - Part one*. Event Leadership Institute. Retrieved from <https://eventleadershipinstitute.com/in-store-for-events-industry-in-2021-and-beyond-part-1-and-2/>

Global Footprint Network. (2023). *Glossary*. Retrieved from <https://www.footprintnetwork.org/resources/glossary/>

Global Footprint Network. (2023). *Media backgrounder: Earth overshoot day*. Earth Overshoot Day. Retrieved from <https://www.overshootday.org/newsroom/media-backgrounder/#:~:text=Ecological%20overshoot%20occurs%20when%20human,what%20the%20planet%20can%20regenerate>

Government of Canada. (2023, April 14). *Plastic waste and pollution reduction*. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste.html>

Gursoy, D., Kim, K., & Uysal, M. (2004). Perceived impacts of festivals and special events by organizers: An extension and validation. *Tourism Management*, 25(2), 171–181. [https://doi.org/10.1016/s0261-5177\(03\)00092-x](https://doi.org/10.1016/s0261-5177(03)00092-x)

Howarth, J. (2022, December 22). *8 emerging event industry trends (2023-2025)*. Retrieved from <https://explodingtopics.com/blog/event-industry-trends?name=&email-2=&Phone-Number=&country=&checkbox-2=on&field=&field-2=>

Irshad, H. (2011, June). *Impacts of community events and festivals on rural places*. Retrieved from [https://www1.agric.gov.ab.ca/\\$Department/deptdocs.nsf/all/csi13702/\\$FILE/Community-events-and-festivals.pdf](https://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/csi13702/$FILE/Community-events-and-festivals.pdf)

Joint Meetings Industry Council. (n.d.). *Net zero carbon events: an industry initiative to address climate change*. Net zero carbon events. Retrieved from <https://www.netzerocarbonevents.org/initiative/>

Jones, M. (2018). *Sustainable event management: a practical guide* (3rd ed.). Routledge.

Katz-Buonincontro, J. (2022). *How to interview and Conduct Focus Groups*. American Psychological Association.

KeepCup. (2019, April 17). *Glasgow Coffee Festival*. Retrieved from <https://ca.keepcup.com/keepup/glasgow-coffee-festival-success-story>

Kennedy, C. S. (2017, April 22). *Coachella generates 107 tons of solid waste each day. About 20% of it gets recycled*. Retrieved from <https://www.desertsun.com/story/life/entertainment/music/coachella/2017/04/21/coachella-generates-107-tons-solid-waste-each-day-20-gets-recycled/305682001/>

Levy, S.- A. (2019, November 15). *Is state-of-the art incineration technology in the cards for Toronto?* Toronto Sun. Retrieved from <https://torontosun.com/news/local-news/levy-is-state-of-the-art-incineration-technology-in-the-cards-for-toronto>

*Manitoba announces funding for 59 community events*. Global News. (2022, November 14). Retrieved from <https://globalnews.ca/video/9278059/manitoba-announces-funding-for-59-community-events>

Marchini, B. (2013, March). *Festivals and sustainability: Reducing Energy related greenhouse gas emissions at music festivals*. Retrieved from

<https://dora.dmu.ac.uk/bitstream/handle/2086/8840/FINAL%20VERSION%20-%20BEN%20MARCHINI%20%20-%20Final%20Thesis%20Submission%20Copy.pdf>

MeetGreen. (n.d.). *The environmental footprint of an event*. Retrieved from

<https://www.meetgreen.com/wordpress/wp-content/uploads/2017/09/eventfoot.pdf>

Miller, E., Robinson, R., McMaster, M.-L., Holloway, E., and Kapoor, A. (2021). *Ontario's Ecological Footprint and Biocapacity: Measures and trends from 2005 to 2015*. Report submitted to the Ontario Ministry of Natural Resources and Forestry. Retrieved from:

[https://footprint.info.yorku.ca/files/2021/11/OntarioEFBreport\\_20211119.pdf?x61824](https://footprint.info.yorku.ca/files/2021/11/OntarioEFBreport_20211119.pdf?x61824)

Norman, H. (2018, April 10). *Managing contaminated recyclables will cost Toronto Millions by end of year*.

The Globe and Mail. Retrieved from <https://www.theglobeandmail.com/canada/toronto/article-changing-recycling-market-could-cost-toronto-92-million-this-year/>

Oceanwise, & WWF. (2021). *2021 Impact Report*. Great Canadian Shoreline Clean Up. Retrieved from

<https://shorelinecleanup.org/storage/resources/gcsc-i1.pdf>

Ohio Environmental Protection Agency. (n.d.). *Zero Waste special event planning guide*. Retrieved from

<https://www.swaco.org/DocumentCenter/View/1206/Ohio-EPA-1786-zerowaste-guide-FINAL>

PFK Consulting. (2009, February). *Major festivals and events attraction research study*. Retrieved from

[http://www.mtc.gov.on.ca/fr/publications/Ontario\\_Major\\_Festivals\\_and\\_Events\\_Attraction.pdf](http://www.mtc.gov.on.ca/fr/publications/Ontario_Major_Festivals_and_Events_Attraction.pdf)

Refsgaard, K., & Magnussen, K. (2009). Household behaviour and attitudes with respect to recycling food waste – experiences from focus groups. *Journal of Environmental Management*, 90(2), 760–771.

<https://doi.org/10.1016/j.jenvman.2008.01.018>

Region of Peel. (n.d.). *Roadmap to a circular economy in the region of peel*. Retrieved from <https://peelregion.ca/waste/pdf/roadmap-circular-economy.pdf>

Ricci, T. (2017, December 26). *Does your New Year's resolution include proper recycling? the city hopes so* / *CBC news*. CBCnews. Retrieved from <https://www.cbc.ca/news/canada/toronto/toronto-recycling-wrapping-paper-blue-bin-1.4448611>

Sen Nag, O. (2019, February 1). *The 10 biggest cities in Ontario*. WorldAtlas. Retrieved from <https://www.worldatlas.com/articles/the-10-biggest-cities-in-ontario.html#:~:text=With%20a%20population%20of%202%2C731%2C571,serves%20as%20its%20provincial%20capital>

Solid Waste Management Services. (2015, March). *Special events waste diversion handbook*. Retrieved from <https://www.toronto.ca/wp-content/uploads/2017/11/9980-Special-Events-Hand-Book.pdf>

Solid Waste Management Services. (2020, August 17). *Transition of Toronto's Blue Box Program to extended producer*. Retrieved from <https://www.toronto.ca/legdocs/mmis/2020/ie/bgrd/backgroundfile-156324.pdf>

Solid Waste Management Services. (2020, February 13). *Mixed Waste Processing Study Update*. Retrieved from <https://www.toronto.ca/legdocs/mmis/2020/ie/bgrd/backgroundfile-146477.pdf>

StopWaste. (2007). *Reduce waste at special events by simply planning ahead*. Retrieved from <https://www.stopwaste.org/sites/default/files/Documents/specialevents-swp.pdf>

StopWaste. (2007). *Special events best practices guide*. Retrieved from <https://www.stopwaste.org/resource/brochures/special-events-best-practices-guide>

SummerFolk. (2023). *Greening of the festival*. Retrieved from <https://summerfolk.org/greening/>

SWACO. (n.d.). *Event waste reduction best practices*. Retrieved from

<https://www.swaco.org/DocumentCenter/View/1208/BMPs-Event-Waste-Reduction-Guide>

The Department of Environment and Conservation NSW. (2007, February). *Waste wise event guide*.

Retrieved from [https://www.lgat.tas.gov.au/\\_\\_data/assets/pdf\\_file/0017/323360/WasteWise-Events-Guide-NSW.pdf](https://www.lgat.tas.gov.au/__data/assets/pdf_file/0017/323360/WasteWise-Events-Guide-NSW.pdf)

Toronto Environmental Alliance. (n.d.). *Extended producer responsibility*. Retrieved from

[https://www.torontoenvironment.org/extended\\_producer\\_responsibility](https://www.torontoenvironment.org/extended_producer_responsibility)

Toronto Environmental Alliance. (n.d.). *Facts about incineration and energy-from-waste*. Retrieved from

[https://www.torontoenvironment.org/incineration\\_and\\_energy\\_from\\_waste](https://www.torontoenvironment.org/incineration_and_energy_from_waste)

University of Gloucestershire. (2019, November 13). *Plastic festival waste: Are you doing enough?*

Contemporary issues in events, international hospitality and tourism management. Retrieved from

<https://uniofglos.blog/eventsglos/2019/11/13/plastic-festival-waste-are-you-doing-enough/>

USDA. (2023). *Greening your events*. US Forest Service. Retrieved from [https://www.fs.usda.gov/about-](https://www.fs.usda.gov/about-agency/greening-your-events/policy-accessibility)

[agency/greening-your-events/policy-accessibility](https://www.fs.usda.gov/about-agency/greening-your-events/policy-accessibility)

VanCuren, O. (2022, June 29). *15 event planning certification event professionals must know about*.

Retrieved from <https://blog.pcnametag.com/sustainable-events-101>

Vaughn, P., & Turner, C. (2015). Decoding via coding: Analyzing qualitative text data through thematic coding and survey methodologies. *Journal of Library Administration*, 56(1), 41–51.

<https://doi.org/10.1080/01930826.2015.1105035>

Weight of Stuff. (2019). *List of things that weigh 100 tons*. Weight of Stuff. Retrieved from <https://weightofstuff.com/list-of-things-that-weigh-100-tons/list-of-things-that-weigh-100-tons/>

Wosik, E. (2021, May 7). *Recycling contamination: What is it and why is it important?* Talkin' Trash With UHN. Retrieved from <https://talkintrashwithuhn.com/2021/05/07/recycling-contamination-what-is-it-and-why-is-it-important/>

Zaman, A. U. (2017). A strategic framework for working toward Zero waste societies based on perceptions surveys. *Recycling*, 2(1). <https://doi.org/10.3390/recycling2010001>

Zero Waste International Alliance. (2022, May 19). *Zero waste hierarchy of highest and best use 8.0*. Retrieved from <https://zwia.org/zwh/>

ZeroWaste Scotland. (2019). *How to plan and deliver environmentally sustainable events*. Retrieved from <file:///C:/Users/SophieAngoh/Downloads/how-to-plan-and-deliver-environmentally-sustainable-events.pdf>

# APPENDIX

## Appendix 1: Outreach email

Hello,

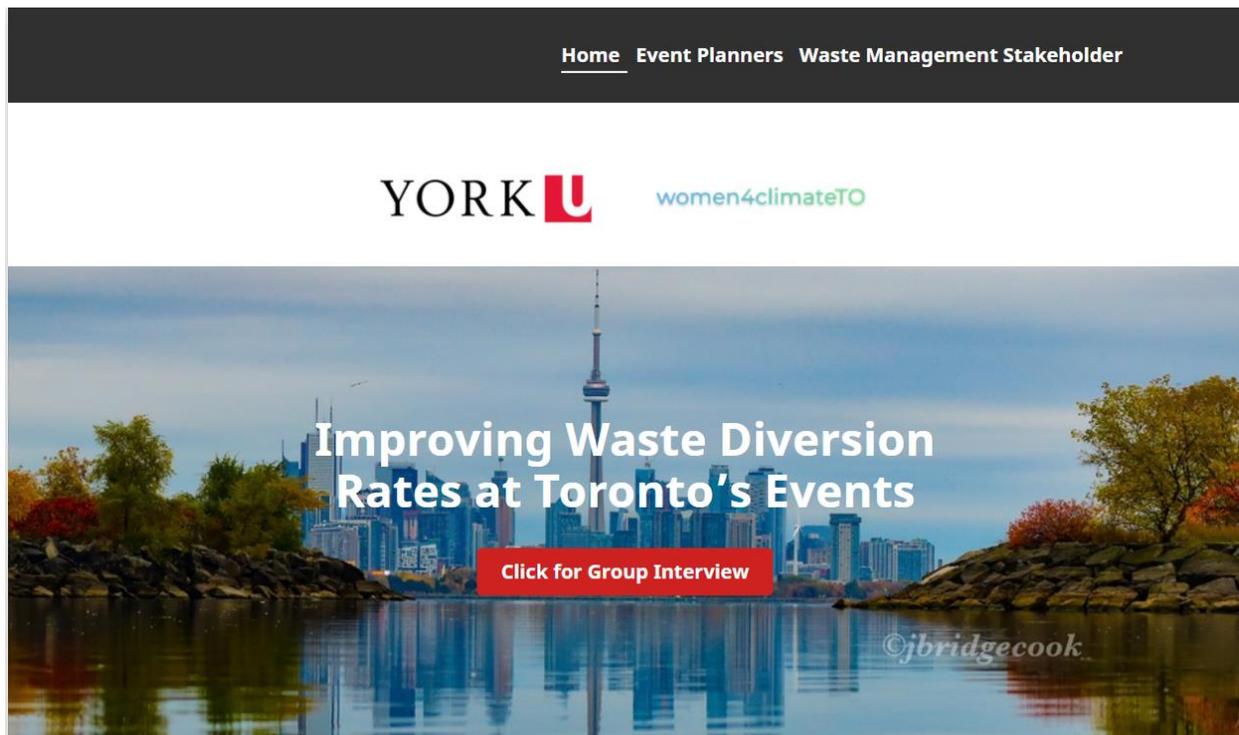
My name is Marie Sophie Angoh and I am conducting research on waste management at Toronto's events for my Masters in Environmental Studies at York University as well as Women4Climate with the city of Toronto. I was wondering if I could be connected to your event planner/organizer for a virtual interview or a survey related to the preparation of an event, the management of an event and the cleanup process of an event.

Details of the study and who I am can be found on [www.torontorefuse.ca](http://www.torontorefuse.ca)  
Their participation will aid in developing best practices, resources and tools related to the waste management of events in Toronto as well as an integral role in moving Toronto toward a Zero Waste Circular Economy.

Thank you in advance, I appreciate your time,

Sophie Angoh  
647-835-1040  
MES Student  
York University

## Appendix 2: TORefuse Website





## The Purpose.

Toronto has numerous events annually that are iconic to the city's culture and lifestyle. It allows multiple individuals to share experiences with folks of similar interests and create long lasting memories and it is also an opportunity for Torontonians to be good stewards of the environment by mitigating its waste footprint.

The goal of this research is to apply Zero Waste principles to Toronto's events to minimize the amount of waste, increase diversion rates, educate the public, and improve on best practices. By improving waste management practices, we can

reduce debris from entering our watersheds, from polluting our environment as well as prolong the lifespan of our landfills. If we all work together strategically, we can create sustainable solutions that benefit both humans and the environment.



## Women4ClimateTO.

This research is also part of W4CTO which is a mentorship program organized by the City of Toronto and C40.

W4CTO supports and empowers 12 female-identifying participants who live and/or work in the GTA, providing them with a programme that combines mentorship, networking, collaborative learning opportunities and a pitch competition.

The aim of the **W4CTO** programme is to promote the advancement of projects that align with the objectives of the following city strategies: TransformTO and ResilienceTO.

**Learn More**

---

## **My Supervisor.**



**Calvin Lakhan, Ph.D.** is currently co-investigator of the “Waste Wiki” project at York University (with Dr. Mark Winfield), a research project devoted to advancing understanding of waste management research and policy in Canada. He holds a Ph.D from the University of Waterloo/Wilfrid Laurier University joint Geography program, and degrees in economics (BA) and environmental economics (MEs) from York University.

## **About Me.**



**Sophie Angoh.** I am currently enrolled in a Master of Environmental Studies at York University. My research centers on waste management, Circular Economy and Zero Waste principles through the lens of corporate social responsibility. I aspire to help organizations mitigate their waste for a more sustainable future. I love all things nature. My hobbies include rock climbing, cycling and camping.

## **My Mentor.**





**Joyce McLean** is a policy and communications leader with decades of experience providing strategic advice and government and media relations expertise across the range of energy, toxic chemicals, water quality and sustainability issues. Former work experience includes stints within the Ontario Minister of the Environment's office, Toronto Hydro, Greenpeace International, as well as running her own consulting company. Board participation includes the IJC's Great Lakes Water Quality Board, the Canadian Wind Energy Association, the Greenbelt Foundation and Green\$aver.

---

## Curious about the results?

Subscribe below to receive updates, infographics, and final results. Your information will always remain anonymous.

Enter your email address

**Subscribe.**

## Contact Us

If you have questions, concerns or feedback please do not hesitate to email us at [torontorefuse@gmail.com](mailto:torontorefuse@gmail.com)

**YORK U** [women4climateTO](#)

## Event Planners

**Research Name:** Improving Waste Diversion Rates at Toronto's Events

**Researcher:** Marie Sophie Angoh

**Purpose of Research:** This research aims to collect relevant information for managing waste at an event, develop best practices along with resources and tools to make it easier for event organizers to create an effective waste management plan. The goal is to contribute to existing knowledge on Zero Waste, Circular Economy and Resiliency centered around the culture and citizens of Toronto. This research like all MES Major Research will be published in YorkSpace and may be published on the Faculty of Environmental and Urban Change website if nominated for the Outstanding Paper Series.

**Your Role:** You will be asked a series of open-ended and closed-ended questions related to the preparation of an event, the management of an event and the clean up process of an event. These questions will be asked in the form of a survey with a time commitment of approximately 15mins.

**Voluntary Participation:** Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the nature of any relationship you may have with the researcher, study staff or York University, either now or in the future.

**Legal Rights and Signatures:** By signing your name below, you consent to participate in Improving Waste Diversion Rates at Toronto's Events conducted by Marie Sophie Angoh. You agree that your participation on ZOOM may be recorded for later viewing by the researcher for notetaking, clarity, or a refresher. You may choose to have your video on or off. You understand the nature of this study and wish to participate. You are not waiving any legal rights by signing this form.

**Risks and Discomforts:** We do not foresee any risks or discomfort resulting from your participation in the research. You have the right to not answer any specific questions.

**Benefits of the Research:** Your participation will aid in developing best practices, resources and tools related to the waste management of events in Toronto as well as an integral role in moving Toronto toward a Zero Waste Circular Economy.

**Withdrawal from the Study:** You can stop participating in the study at any time, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer questions, will not affect your relationship with the researchers, York University, or any other group associated with this project. If you withdraw from the study, all associated data collected will be immediately destroyed whenever possible.

**Confidentiality:** All information you supply during the research will be held in confidence and your name will not appear in any report or publication of the research. The data will be collected with your name omitted to maintain anonymity unless you specifically give your permission verbally during the interview. Your data will be safely stored on my computer with I, being the sole accessor to the information.

**Questions About the Research:** If you have questions about the research in general or about your role in the study, please feel free to contact my Supervisor, Calvin Lakhan by email [lakhanc@yorku.ca](mailto:lakhanc@yorku.ca). This research has been reviewed and approved by the Research Committee of the Faculty of Environmental and Urban Change, on behalf of York University, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Office of Research Ethics, telephone 416-736-5914 or email [ore@yorku.ca](mailto:ore@yorku.ca)

**I Agree**

# Waste Management Stakeholder

**Research Name:** Improving Waste Diversion Rates at Toronto's Events

**Researcher:** Marie Sophie Angoh

**Purpose of Research:** This research aims to collect relevant information for managing waste at an event, develop best practices along with resources and tools to make it easier for event organizers to create an effective waste management plan. The goal is to contribute to existing knowledge on Zero Waste, Circular Economy and Resiliency centered around the culture and citizens of Toronto. This research like all MES Major Research will be published in YorkSpace and may be published on the Faculty of Environmental and Urban Change website if nominated for the Outstanding Paper Series.

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**I Agree**

# Focus Group Interview

**Research Name:** Improving Waste Diversion Rates at Toronto's Events

**Researcher:** Marie Sophie Angoh

**Purpose of Research:** This research aims to collect relevant information for managing waste at an event, develop best practices along with resources and tools to make it easier for event organizers to create an effective waste management plan. The goal is to contribute to existing knowledge on Zero Waste, Circular Economy and Resiliency centered around the culture and citizens of Toronto. This research like all MES Major Research will be published in YorkSpace and may be published on the Faculty of Environmental and Urban Change website if nominated for the Outstanding Paper Series.

**Your Role:** You will be participating in a small group discussion that will be lead with open-ended questions related to the waste management of events. The goal is to have a discussion with others on our feelings and attitudes toward managing waste at events and brainstorm ideas that you would be willing or unwilling to adopt in order to reduce the amount of waste generated. The length of the interview will depend on discussion and the maximum amount of time is 1hour.

**Voluntary Participation:** Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the nature of any relationship you may have with the researcher, study staff or York University, either now or in the future.

**Legal Rights and Signatures:** By signing your name below, you consent to participate in Improving Waste Diversion Rates at Toronto's Events conducted by Marie Sophie Angoh. You agree that your participation on ZOOM may be recorded for later viewing by the researcher for notetaking, clarity, or a refresher. You may choose to have your video on or off. You understand the nature of this study and wish to participate. You are not waiving any legal rights by signing this form.

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**I Agree**

**Appendix 4: Questionnaires**

# Event Planners and Organizers

Thank you for taking the time to complete this survey. Your input is highly appreciated and will contribute to the creation of best practices, resources and tools related to the management of waste at events.

- 1. What is your involvement with managing waste for events in Toronto? (Your role, duties, and responsibilities)

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- 2. What are the challenges/obstacles you experience in fulfilling your responsibilities related to waste management at events?

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- 3. What are the challenges/obstacles that prevent your role from minimizing waste/increase diversion rates?

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4. What do you think would help you overcome those challenges? Either from you or your team or other people?

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5. I think more training, education, and awareness are needed.

*Mark only one oval.*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

6. A website dedicated to event planning within the city would be helpful.

*Mark only one oval.*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

7. Have you worked on a waste management plan before? What process did you take to do it? How did you find the information needed to fill it out? Did you seek out additional support and resources?

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8. In your event planning tasks, is waste management a...

*Mark only one oval.*

- Top priority
- Medium priority
- Low priority

9. What can the city provide you to better create a waste management plan, in its implementation and follow-through?

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10. What initiatives did you implement that you found most successful in your event? If none, what initiatives ideally would you like to implement to become more successful in managing the waste at your event?

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11. How would you like events, in general, to be held accountable for their waste? Whose responsibility should it be?

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12. Conducting a waste audit would be feasible for my event.

*Mark only one oval.*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

13. Do you have other comments, concerns or feedback?

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This content is neither created nor endorsed by Google.

**Google Forms**

# Waste Management Stakeholders

Thank you for taking the time to complete this survey. Your input is highly appreciated and will contribute to the creation of best practices, resources and tools related to the management of waste at events.

1. What is your involvement with managing waste for events in Toronto? (Your role, duties, and responsibilities)

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---

---

2. What are the challenges/obstacles you experience in fulfilling your responsibilities related to waste management at events?

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3. What are the challenges/obstacles that prevent your role from minimizing waste/increase diversion rates?

---

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4. What do you think would help you overcome those challenges? Either from you or your team or other people?

---

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5. In an event, regarding the activities of an event for waste reduction, what would you ideally have wanted to happen or what would you ideally have wanted the event to have? (More bins, sorting stations, volunteers, posters, educational materials, awareness, marketing, etc)

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6. How are events currently held accountable for their waste?

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7. How would you like events to be held accountable for their waste? Whose responsibility should it be?

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8. What role do you see the city playing in this field?

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9. Do you have other comments, concerns or feedback?

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This content is neither created nor endorsed by Google.

Google Forms

## Appendix 5: A Snippet of TORefuse Instagram

torontorefuse   Following ▾   Message   +👤   ...

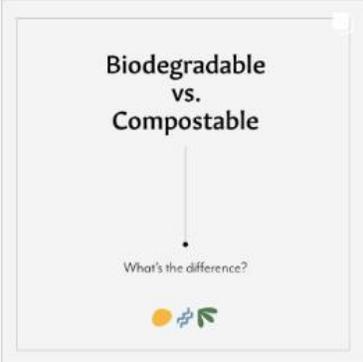
20 posts   81 followers   103 following

**TORefuse**  
Dedicated to the beautiful city of Toronto  
Weekly facts on refuse/waste  
Empowering Torontonians to make sustainable choices  
Stay Informed  
[msha.ke/torontorefuse](https://msha.ke/torontorefuse)

Followed by kollmelissa, mpngen, seanhardie + 19 more

---

POSTS   TAGGED



Sample post and engagement:



**torontorefuse**  Happy Global Recycling Day! 🌱

It's important to understand what's recyclable or not within Toronto because every municipal waste stream is different! What's accepted somewhere else may not be accepted here and recycling properly allows less materials to be contaminated and less thrown into the landfill!

What's something you thought was recyclable but later found out it wasn't?

#globalrecyclingday #recycling #refuse #recovery #nolandfill #sustainable #sustainableliving #circulareconomy #zerowaste #zerowasteliving

101w

**realsimpleandclean** The black take out containers 🙄 

101w 1 like Reply

— Hide replies

**torontorefuse** @real.simpleandclean oohh yes they're everywhere 😬 it's unfortunate Toronto doesn't recycle them. 

101w Reply

**realsimpleandclean** @torontorefuse I literally had no idea till my friend told me. I was so sad! 

101w 1 like Reply

**darrenloydmartin** I definitely used to recycle greasy pizza boxes! 😬 

101w 1 like Reply

— View replies (1)

 Liked by **stephanie.npc** and others

MARCH 18, 2021

 Add a comment...  Post

## Appendix 6: Pre-interview questionnaire

# Focus Group Interview Form

Thank you for taking the time to participate in this study. Your input is highly appreciated and will contribute to the creation of best practices, resources and tools related to the management of waste at events. It will also determine whether now is the best time for events to go green or not depending on the attitudes of event participants.

1. Name (Your name will remain anonymous, this is just to ensure everyone has filled out a form prior to the interview)

---

2. Age range

*Mark only one oval.*

18-29

30-39

40-49

50-59

60+

3. In general, do you think you are an environmentally conscious person?

*Mark only one oval.*

Yes

No

Unsure

I would like to be

4. Do you recycle at home?

*Mark only one oval.*

- Yes
- No
- Unsure
- I would like to

5. Do you compost at home?

*Mark only one oval.*

- Yes
- No
- Unsure
- I would like to

6. On average, how many events within the city, not including small indoor gatherings, do you attend per year? (Pre-COVID)

*Mark only one oval.*

- 1-2
- 3-5
- 5-9
- 10+

7. If an event was green certified, would that motivate you to attend?

*Mark only one oval.*

- Yes
- No
- Unsure
- Makes no difference

8. Would you consider paying more to attend an environmentally friendly event?

*Mark only one oval.*

- Yes
- No
- Unsure

9. Should waste management be a ... at an event,

*Mark only one oval.*

- High priority
- Medium priority
- Low priority

10. Is there anything you'd like to learn more about during our group interview or to speak about?

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## Appendix 7: Coded Responses

Event Planners	
<b>What are the challenges/obstacles you experience in fulfilling your responsibilities related to waste management at events?</b>	<b>Frequency Count</b>
Uncontrolled Outcomes	1
Collaboration/Coordination with other affected stakeholders	5
Barriers to Communication	3
Resource Constraints (time, money, staff, infrastructure etc.)	2
<b>What are the challenges/obstacles that prevent your role from minimizing waste/increase diversion rates?</b>	<b>Frequency Count</b>
Lack of sustainable options	2
Behavioral Barriers	2
Resource Constraints (time, money, staff etc.)	2
Sustainable Procurement	3
<b>What do you think would help you overcome those challenges? Either from you or your team or other people?</b>	<b>Frequency Count</b>
Training/Guidance	2
Support from other stakeholders (i.e. municipality, waste hauler etc.)	2
Clear and Consistant Communication	2
Public Education and Awareness	5
<b>Have you worked on a waste management plan before? What process did you take to do it? How did you find the information needed to fill it out? Did you seek out additional support and resources?</b>	<b>Frequency Count</b>
No, I have not worked on this	2
Yes, I have worked on this	8
<b>What can the city provide you to better create a waste management plan, in its implementation and follow-through?</b>	<b>Frequency Count</b>
End of life management support (offer additional composting/recycling services)	2

Clear, Consistent and Simplified Guidance (i.e. Best Practices)	4
Resource support (communications, promotion and education etc.)	5

What initiatives did you implement that you found most successful in your event? If none, what initiatives ideally would you like to implement to become more successful in managing the waste at your event?	Frequency Count
---	-----------------

Other	1
Collaboration with venue to minimize waste footprint	2
Coordinated Waste Plan/Pre Planning	2
Engaged Volunteers	3

How would you like events, in general, to be held accountable for their waste? Whose responsibility should it be?	Frequency Count
---	-----------------

Joint Responsibility (all parties)	1
Event/City	1
Venue Only	2
Venue/Event Organizer	3

### Focus Group

Think back on your past experiences, what were some environmental initiatives that had a long-lasting effect on you?	Frequency Count
--	-----------------

Water refill stations	4
Waste bin overflow	1
Reusable water bottles	1
No single-use plastic	1
Accessibility	1
Conscious driven decisions	1
Reusable packaging	2
Metal straws	1
Low Priority	6
Paper straws	1
Communicate Impact	1
Fee-encouraged behaviours	1

Were you ever skeptical on certain environmental initiatives at events?	Frequency Count
---	-----------------

Questionable impacts	3
Inadequate waste bins	1
Confused	1
Complicated	1
Lack of information	3
Lack of consistency	2
Regulations	1
Performative statements	2
Insincere	1
Concerned	1

<b>What would be most efficient in building awareness and education?</b>	<b>Frequency Count</b>
--	------------------------

Announcements	1
Open communication	2
Simplified signage	1
Intuitive bins	1

<b>From your experience, do you think that events have been doing a good job at managing their waste?</b>	<b>Frequency Count</b>
---	------------------------

Fair	5
Poor	5
Afterthought	1
Dirty	1
Hygiene and Safety	1
Disappointing	2
Concerned	2

<b>How should events be held accountable?</b>	<b>Frequency Count</b>
---	------------------------

Prescriptive requirements	1
Mandate reuse	1
Public commitment	1
Waste report	1
Enforcement	1
Waste prioritized	1
Environmental plan	1

<b>What changes would you ideally like to see, if any?</b>	<b>Frequency Count</b>
--	------------------------

Sustainability certification	1
Social media campaigns	1
Zero waste	1
Leave content	1
Education	1
Gamification	1

Announcements	1
Leadership	1
Competitive Advantage	1

Can you recall a specific moment where it made you think "oh crap, this is a lot of waste" and how did it make you feel?	Frequency Count
--	-----------------

Grimy	1
Disappointed	1
Unpleasant	1
Discouraged	1