

## OBIAA 2023 AWARDS SUBMISSION

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| <b>Contact Name:</b> Oliver Hierlihy   | <b>Pillar &amp; Category:</b> Streetscaping & Public Realm Improvements |
| <b>BIA/Organization:</b> The Waterfront BIA, Toronto   | <b>Time period:</b> Spring Summer 2022                                  |
| <b>Entry title:</b> Cleaning up Lake Ontario to enhance the visitor experience to Toronto’s Waterfront   |   |
| <p><b>Project description:</b> <i>(two sentences; 50 words or less)</i> The Waterfront BIA installed six in-water trash capture devices called SeaBins to collect floating garbage and microplastics in Toronto’s Inner Harbour to study and improve the cleanliness of Lake Ontario and enhance the visitor experience. In 2022 the SeaBins collected 89,313 pieces of tiny trash, including microplastics, and with supplemental skimming removed over 118.5 kg of trash from the lake. The SeaBins will be redeployed again in 2023.</p> <p>This project was in partnership with the University of Toronto Trash Team, Ports Toronto, the Toronto Region Conservation Authority (TRCA), The City of Toronto BIA Office Innovation Grant Program, Harbourfront Centre, Neiuport Aviation, and Swim Drink Fish.</p> |   |



Photo of a SeaBin at the York Street Slip

**NEED OR OPPORTUNITY**

Toronto's Waterfront BIA stretches across Toronto's Inner Harbour along the Queens Quay corridor, representing over 4km of the city's water's-edge at the heart of Canada's largest city. This project started with the identification of a unique eyesore to our BIA; floating trash that gets trapped in the slips and quays of the City's post-industrial waterfront, which no organization in the city is technically responsible for cleaning up.



A photo of floating garbage amongst aquatic plant matter in the Peter Street Basin. Because of the garbage's location in the water, no agency in the City of Toronto is technically responsible for its remediation, necessitating a solution.

**AUDIENCE**

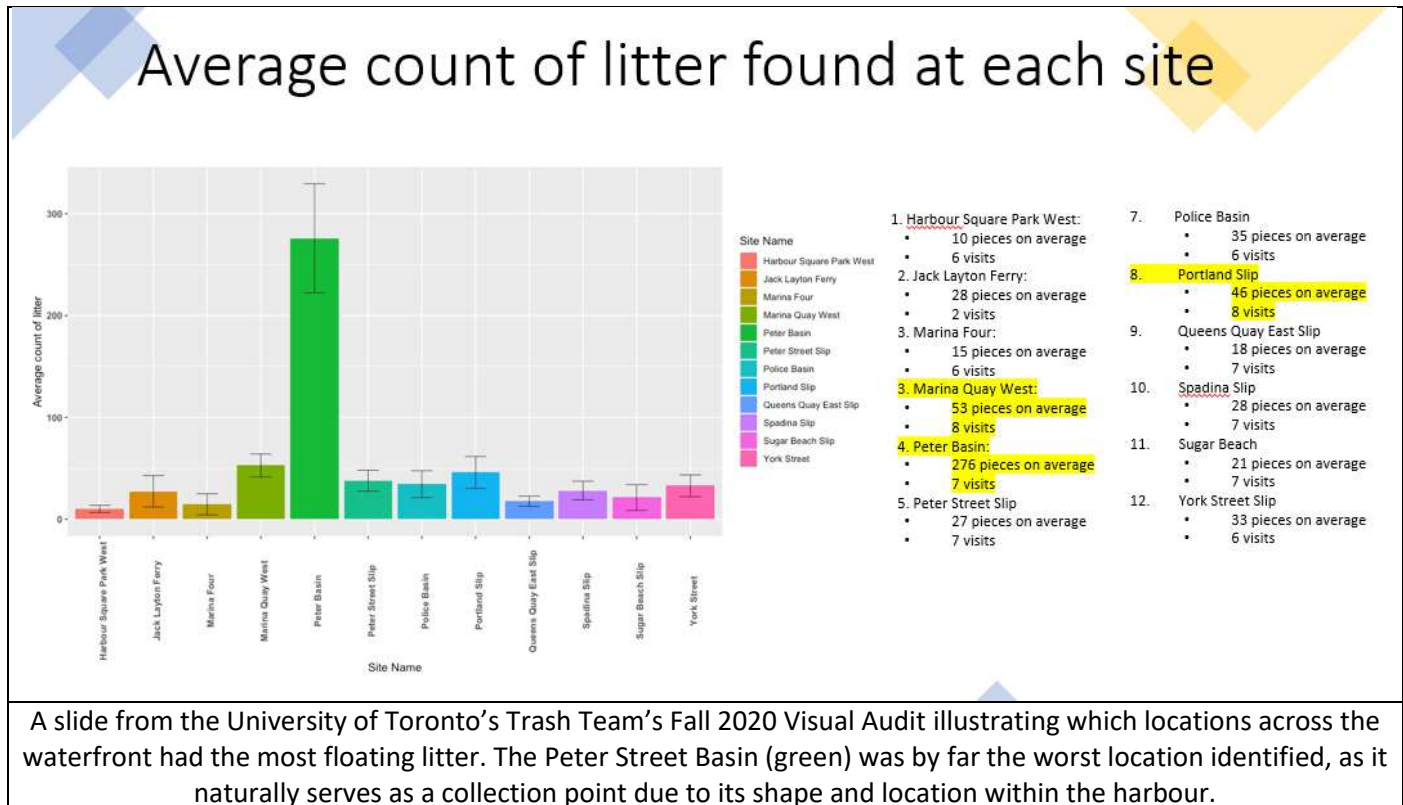
Toronto's waterfront is a major attraction, with 56% of visitors to the waterfront from Ontario coming from outside of the City of Toronto. Visitors to the waterfront expect a clean and delightful experience when walking along the Water's Edge, whether it be through our extensive network of parks and urban beaches, enjoying restaurant patios that overlook the harbour, or when engaging in water-based recreational activities such as sailing, kayaking, and the iconic Toronto Island Ferry. Floating garbage is antithetical to this experience, especially in a country known for its abundance of fresh water, and is the reason why this project is so crucial for us to continue to work on through the SeaBins project and other similar initiatives.

**GOAL AND OBJECTIVES**

Goal: To remove and identify the source of garbage and microplastics in Toronto's Inner Harbour through collaborative, multi-agency projects, ultimately to support government advocacy for solutions that reduce the sources of lake-pollution, so that people can enjoy the natural wonder that is Lake Ontario uninterrupted.

**IMPLEMENTATION**

In the Fall of 2020, the University of Toronto Trash Team conducted regular visual inspections of the quays along the waterfront to identify which locations were the worst for having floating trash in them. Through this process, researchers highlighted just how bad the issue was, with trash collecting in several locations across the district without any process in place for its removal. The Peter Street Basin, which was adjacent to the BIA’s office at the time, was by far the worst location observed, with over 1,500 pieces of floating litter observed during the period.

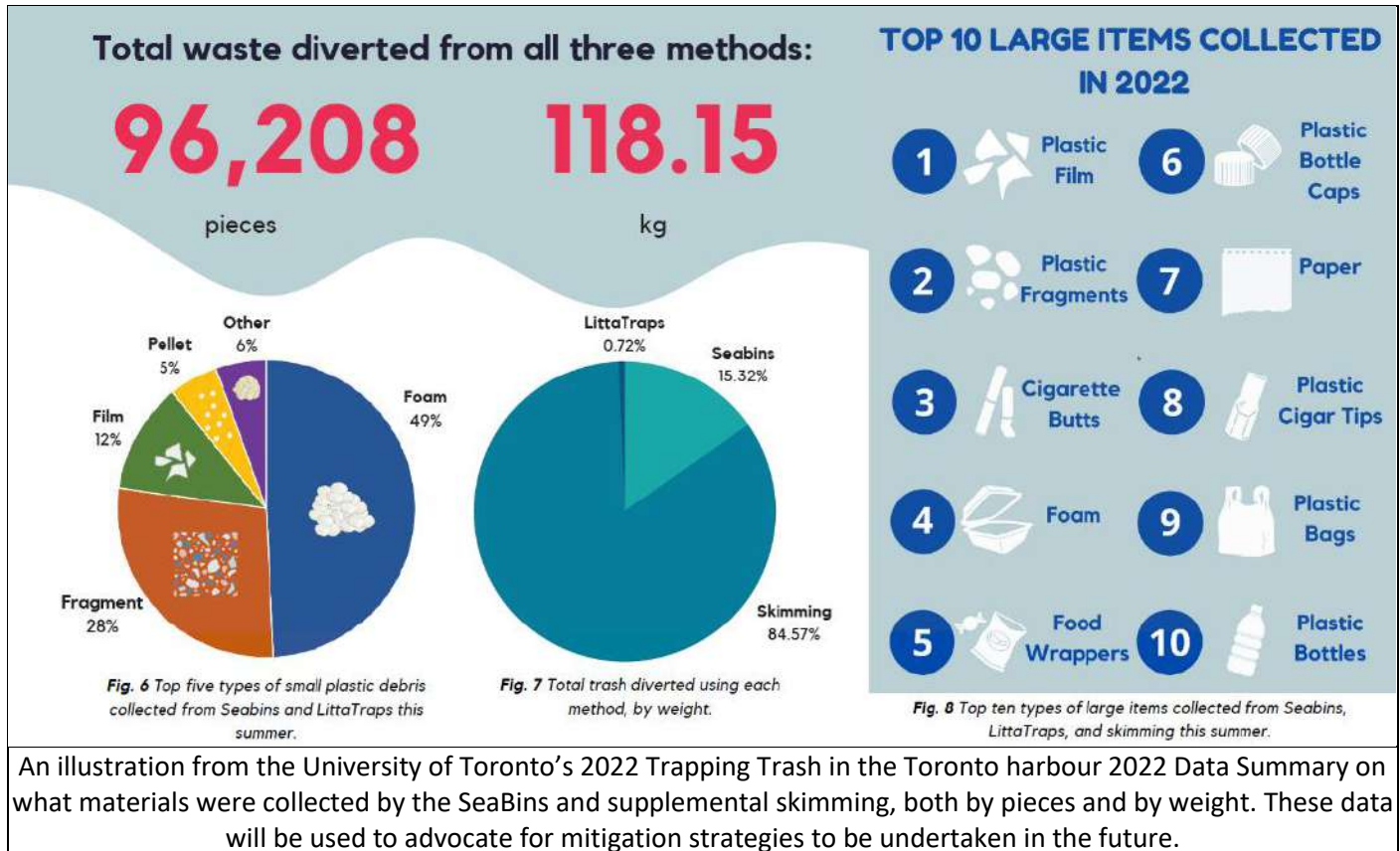


In 2019 Ports Toronto piloted the deployment of a single SeaBin on the waterfront to demonstrate its capabilities, with the goal of expanding the network of SeaBins across the Inner Harbour in the future. In 2021, the WBIA signed on to sponsor the deployment of an additional six SeaBins to create a network across the Inner Harbour, with a financial contribution of \$75,000, funded in part through the City of Toronto’s BIA Office Innovation Grant. This network of SeaBins was first deployed in the Summer of 2022, with students from the University of Toronto Trash Team coordinating the regular emptying and categorization of the materials collected in the SeaBins. The Waterfront BIA also paid students to conduct supplemental skimming of garbage using nets to assist in further collection and categorization of larger floating trash.

In combination with other SeaBins deployed by other groups and funding sources following the initial six deployed by the Waterfront BIA, there are now a total of 12 SeaBins in Toronto’s Inner Harbour network, making it the largest network of SeaBins located in a single harbour in the world.

**RESULTS**

In 2022, a total of 96,208 pieces of small trash were removed from the inner harbour through a combination of water skimming and SeaBin collection. The SeaBins accounted for 89,313 of those pieces of litter, primarily microplastics, which would not have been removed through traditional skimming methods. While this collection is just a drop-in-the-bucket in terms of the total environmental impact, this collection is a first for the City of Toronto, and importantly, the categorization of waste can help identify upstream sources of pollution and can support advocacy for solutions on how these pollutants can be prevented from getting into our waterways in the first place.



**SUPPLEMENTAL MATERIALS**

- [News Clip: CP24 “Nearly 100,000 pieces of plastic removed from the Toronto Harbour. Here’s is what else was found.](#)
- [University of Toronto Trash Team 2022 Trapping Trash in the Toronto Harbour 2022 Data Summary – Policy Brief](#)
- [University of Toronto Trash Team Fall 2022 Seabin and Visual Audit Results](#)
- [Waterfront BIA – City of Toronto BIA Office Innovation Grant Final Report](#)
- [Photos of the SeaBins](#)