



# THE BLUE URBANISM PROJECT:

## An Assessment of Macro Solid Pollution Around Halifax Harbour

Master of Marine Management students, Marine Affairs Program, Dalhousie University

Presented to: Environment & Sustainability Standing Committee

Date: June 8, 2017



Photo courtesy of: Matt Hayes Photography

# Blue Urbanism: Tackling macro marine pollution in the Halifax Harbour

A project by the Master of Marine Management Class of  
2017  
Dalhousie University, Marine Affairs Program

Prepared for:



Photo credit: Halifax Harbour by day and night - Matt Hayes Photography





A story map



## Blue Urbanism: Tackling macro marine pollution in the Halifax Harbour

### Project purpose

Blue Urbanism is a project between [Clean Foundation](#) and the [Dalhousie University Marine Affairs Program](#) to identify sources of macro marine pollution in the Halifax Harbour, Nova Scotia, Canada.

Five locations around the Harbour (Alderney Landing, Bedford Basin-Birch Cove, Black Rock Beach, Dartmouth Cove and Horseshoe Island Park) were used as study sites to collect data on the macro solid marine pollution issue over two separate collection trips in fall 2016.

This information will serve as a basis to provide recommendations to mitigate the sources of marine pollution, as well as demonstrate evidence of the problem to help spur dialogue about solutions with all Haligonians, including policymakers and businesses.





### Bedford Basin - Birch Cove

Before English settlers arrived, Birch Cove was used as a semi-permanent camp by Mi'kmaq families. A dramatic change occurred in the mid-1800s with the building of the railroad, which saw the infilling of some of the coves and tidal ponds. The Rockingham Yacht Club clubhouse was built in 1951, making Birch Cove a popular spot for boating, swimming, and social events. In 1971, the clubhouse was sold and became the Chinatown Restaurant, which remains today.

A story map



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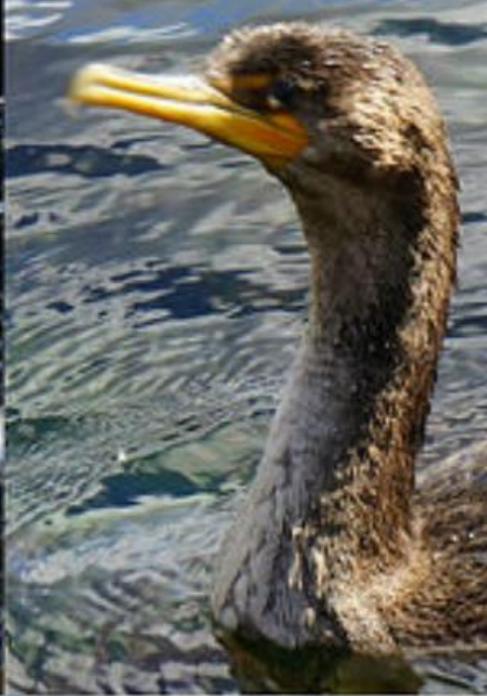
## First, some harbour history

The Halifax Harbour has changed a lot over the past centuries. *Click on each of the points in the map to view historical information and photos of select sites throughout the Harbour.*

From pollutants and contaminants to infilling, the industrial revolution and continued urban development has greatly altered the marine ecosystems of the Halifax Harbour. This includes the dumping of raw sewage into the Harbour over a period of nearly 250 years until recent efforts to clean it up ([view full timeline of the Harbour Solutions project here](#)).

The sewage problem is a well-known pollution problem for the Harbour, but perhaps the lesser known issue of macro marine pollution should also get more public attention.





A story map



## Blue Urbanism: Tackling macro marine pollution in the Halifax Harbour

### Our urban marine wildlife

Despite impacts from urban development and sewage effluent, the Harbour remains a productive environment that supports a variety of wildlife that are threatened by marine pollution.

During a stroll anywhere along the harbourfront, keep your eyes peeled for a diversity of marine life, including seabirds, shorebirds, waterfowl, marine mammals such as harbour seals, fish such as mackerel, herring and Pollock, intertidal species such as common sea stars, and much more. If you get lucky, you may even catch a glimpse of a harbour porpoise's dorsal fin.



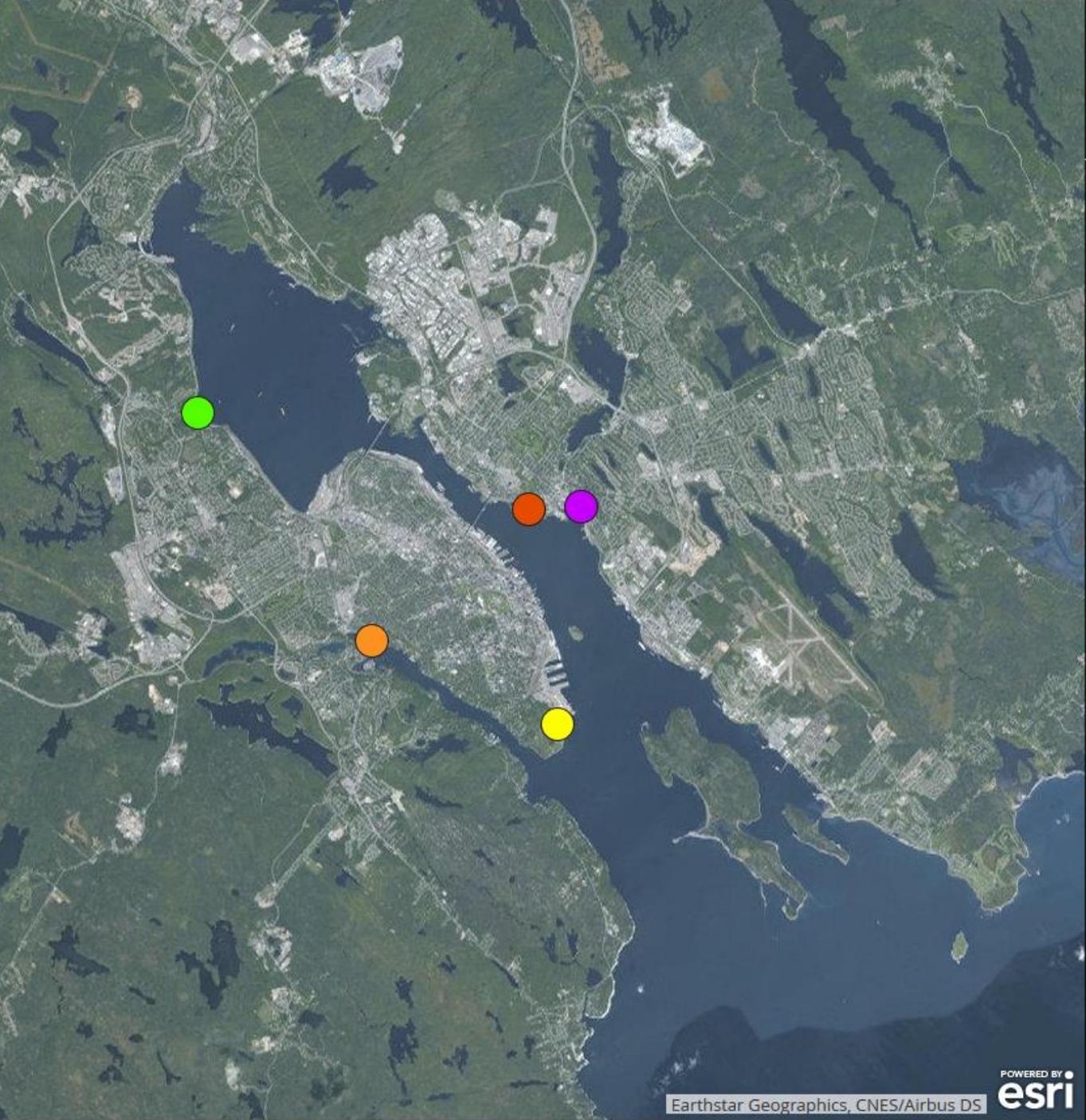
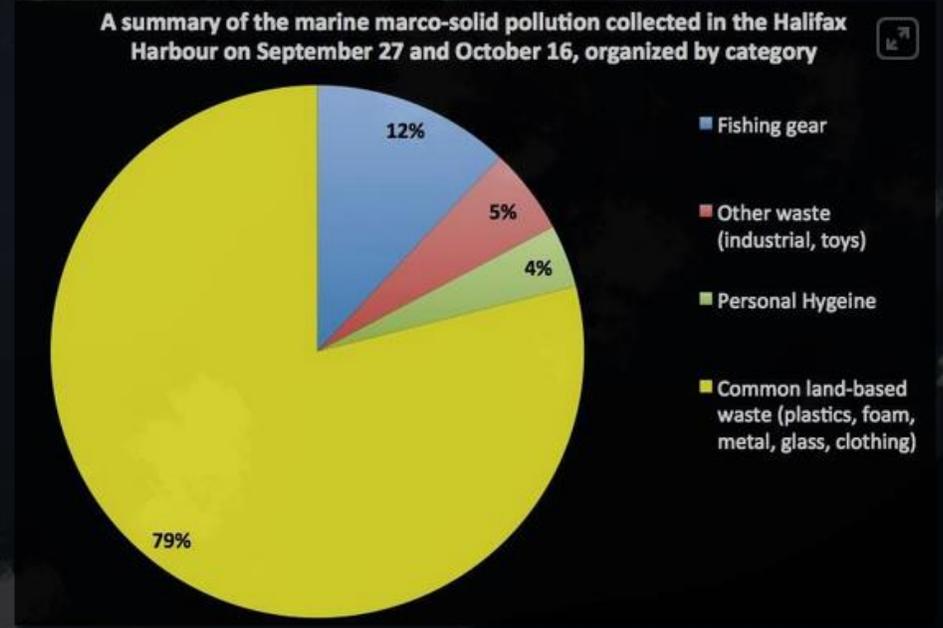
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## Visualizing the marine pollution problem

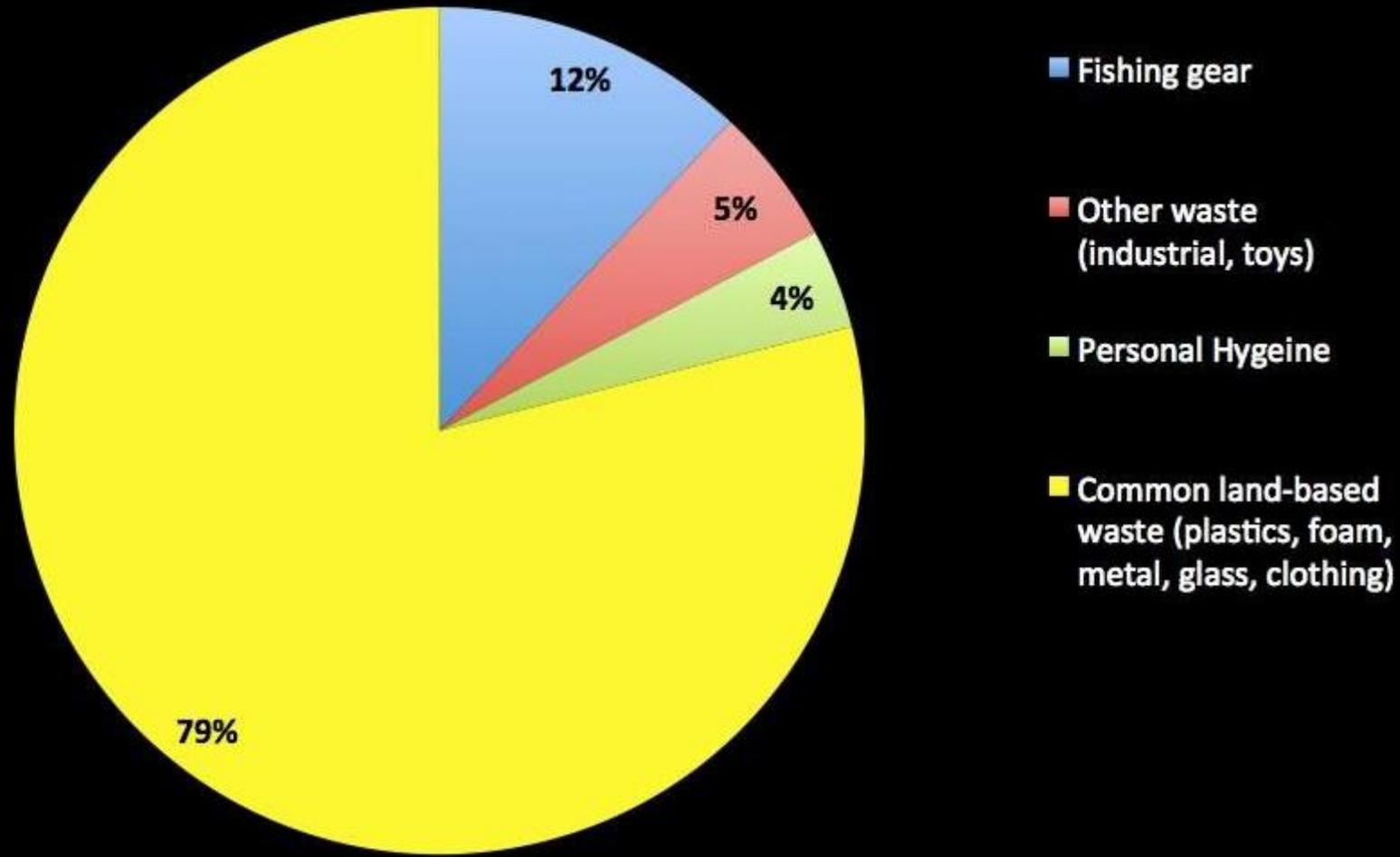
Click on each point to view a summary of the marine pollution data collected, including the top three items of local concern: [Alderney Landing](#), [Bedford Basin-Birch Cove](#), [Black Rock Beach](#), [Dartmouth Cove](#), and [Horseshoe Island Park](#).

The data collected throughout all five sites in the Halifax Harbour helps to demonstrate a common fact that the majority of marine pollution originates from land-based activities.

Here is a summary of the findings:



### A summary of the marine macro-solid pollution collected in the Halifax Harbour on September 27 and October 16, organized by category



Summary of the marine pollution systems of local concern:

Black Rock Beach, Dartmouth

Five sites in the Halifax Harbour

The majority of marine pollution

Macro-solid pollution collected in the Halifax Harbour on September 27 and October 16, organized by category

- Fishing gear
- Other waste (industrial, toys)
- Personal Hygiene
- Common land-based waste (plastics, foam, metal, glass, clothing)

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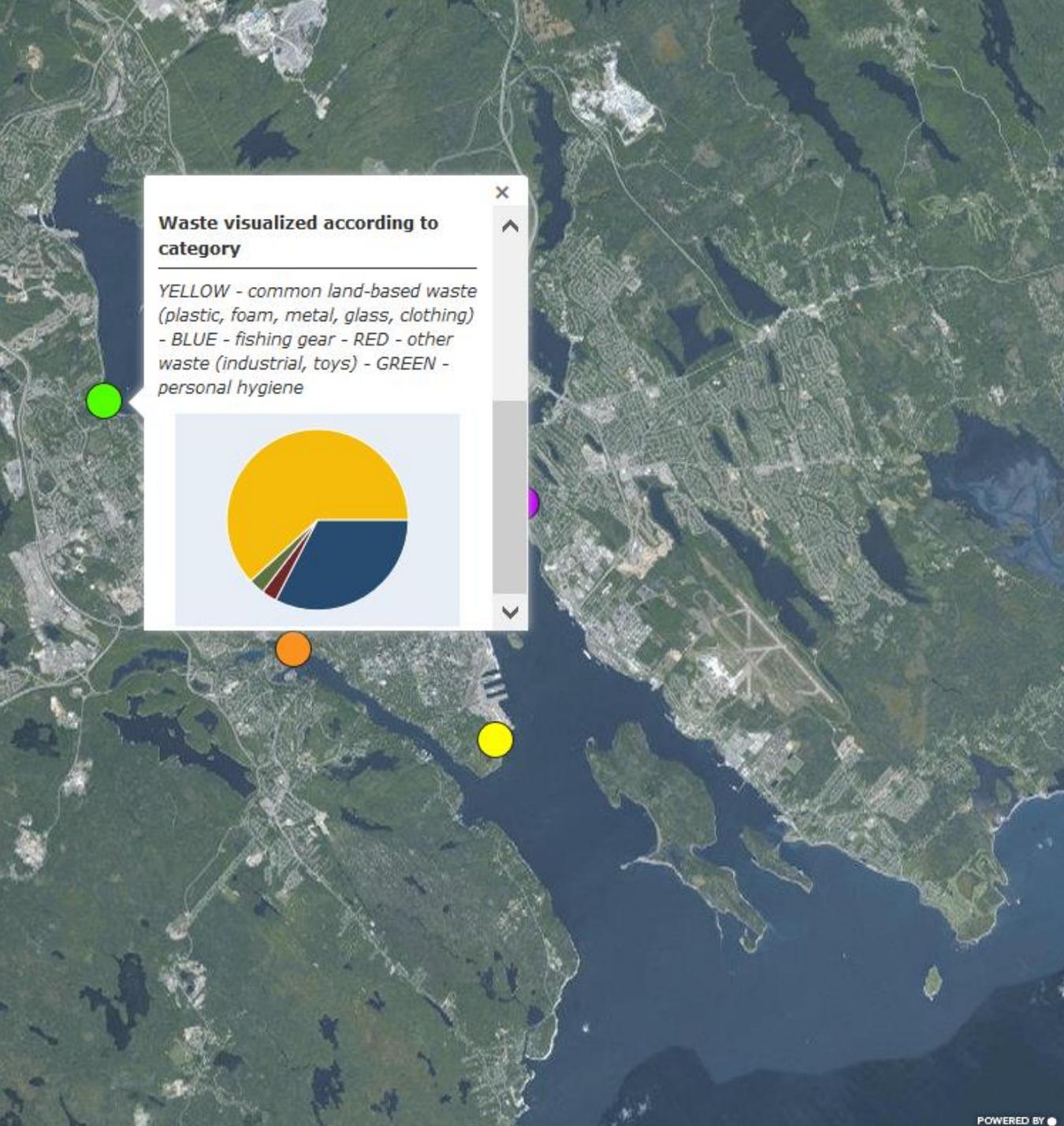
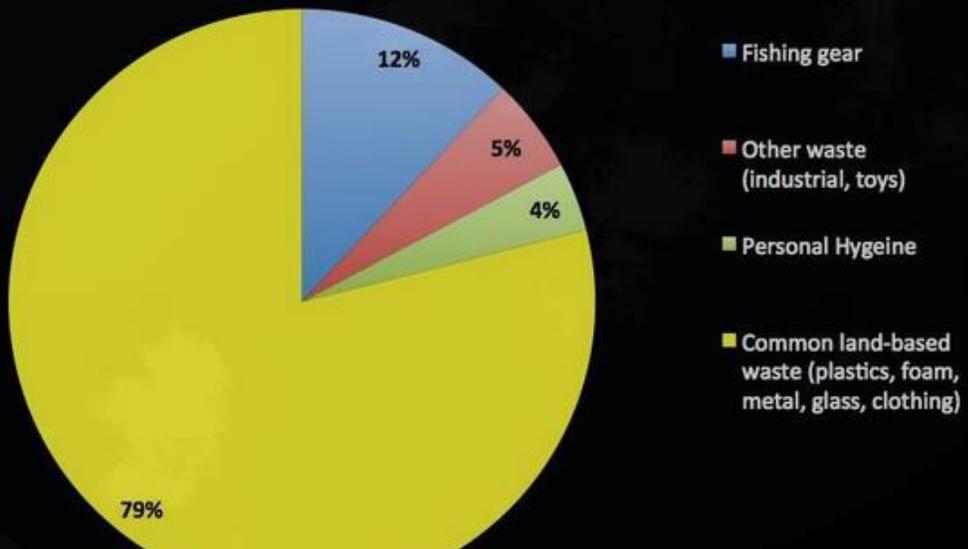
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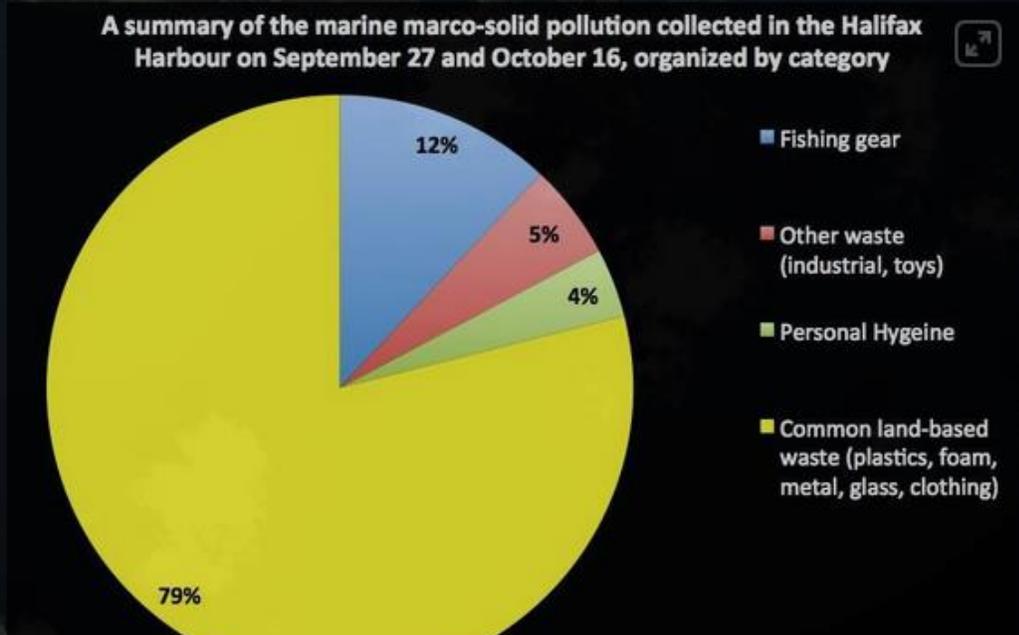
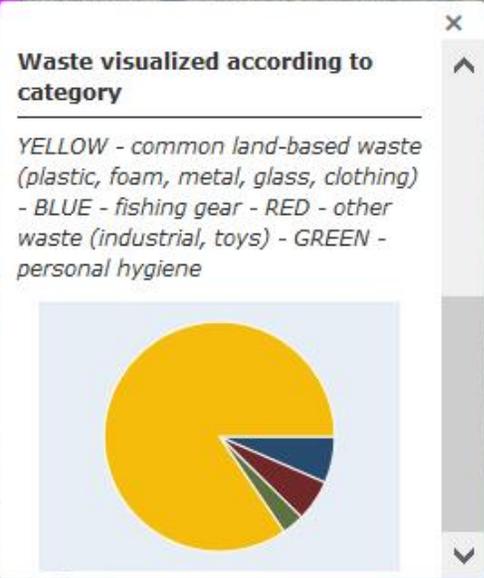
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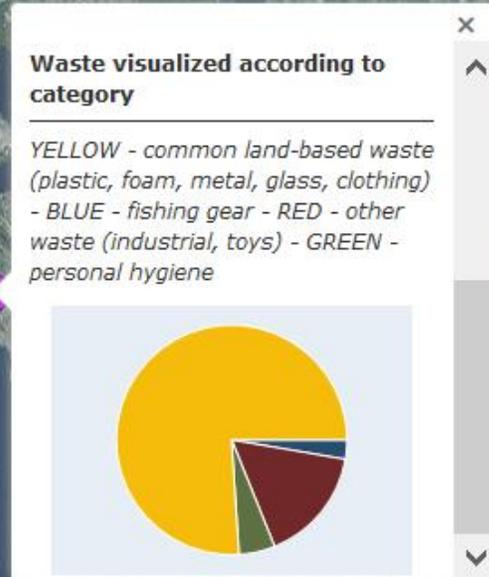
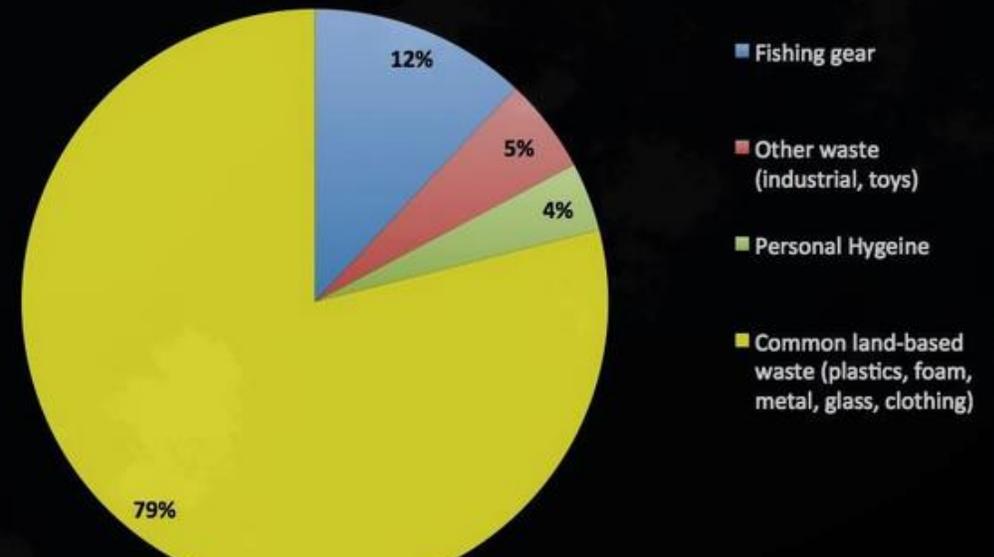
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### Call to action

The Halifax Harbour provides valuable environmental services that support our livelihoods through recreational opportunity, aesthetic values, commercial opportunities, and much more.

Although the Harbour has a polluted past and present, it does not have to be this way in the future. As citizens, we all play a role in keeping it clean. Each individual effort contributes to a greater public good and informs policymakers that ocean health is a priority.

### Here are some ways to help:

- Reduce, Reuse, Recycle!
- Reduce the use and purchase of disposable packaged goods, particularly plastics and non-biodegradable materials.
- Instead, consider reusable items such as canvas bags, water bottles and containers.
- Try to get as much utility as possible from the items you purchase; for instance, patching clothes, fixing or updating electronic devices and choosing consumer goods that will last is both economically and environmentally favourable.
- Get to know your products, and sort them appropriately.
- Get involved! Take part in local beach cleaning initiatives and spread the message to friends and family.

For more information, please visit the [Clean Foundation webpage](#).





# RECOMMENDATIONS:

## Easy

- Conduct garbage infrastructure mapping
- Provide continued support for local community cleanup efforts
- Continued support for educational opportunities

## Medium

- Execute cigarette butt diversion and educational campaign
- Implement city-wide ban on plastic bags
- Explore use of economic instruments to mitigate and prevent marine pollution (e.g. economic disincentives/incentives)

## Ambitious

- Explore opportunity to implement innovative “Harbour Cleanup Machine” pilot project (e.g. Mr. Trash Wheel – Baltimore, Seabin – Australia)
- Develop municipal level strategy for marine pollution, re-invigorating efforts to create a provincial integrated coastal zone management (ICZM) plan.

# Thank you. Questions?

[Click here for the link to the story map.](#)



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