CLEAN-UP THE COAST REPORT 2023

Introduction

Lake Huron Coastal Centre's (LHCC) plastic pollution initiatives offers long-term solutions to Lake Huron's most consequential plastic problems. Clean-up the Coast was funded by Great Lake Local Action to help communities come together for the betterment of Lake Huron's beaches, water, and wildlife. This report will outline the findings and experiences of this project.



Prepared by: Lake Huron Coastal Centre, 2023

Shoreline clean-ups

Disposable items, like straws, grocery bags, coffee cups and water bottles, contribute to the massive amount of plastic pollution in the Great Lakes. Plastic pollution is an emerging global issue in our oceans and lakes, with more than 22 million pounds of plastic pollution ending up in the Great Lakes every year. Plastic pollution poses a threat to wildlife through ingestion and entanglement. **This year LHCC engaged 740**



volunteers to remove over 1,700 pounds of garbage from the Lake Huron shoreline throughout 15 events.



Clean-up the Coast locations in 2023. Link to map.

Data Collection

All garbage collected from an LHCC clean-up will contribute to the world's largest international coastal cleanup initiative through the Ocean Wise database. They work with individuals and groups to minimize plastic and garbage pollution on shorelines and in communities. The goal of this initiative is to remove and analyze trash to better understand common garbage types and where they are sourced from. Having that



data available and the public will help hold corporations and consumers accountable.



Twelve most littered items recorded at LHCC clean-up events in 2023.



www.lakehuron.ca/donate Charitable Registration Number: 872138938 RR0001

Infographic of the top five most littered items recorded at LHCC clean-up events in 2023.

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Beach Clean-up Stations

LHCC developed 6 beach clean-up stations that will be installed on public beaches along the Lake Huron shoreline. These stations will provide everything required for someone to clean up the beach on their own. The supplies are kept in adorable boxes that have educational signage and hand painted native flowers and wildlife. These stations will enact ongoing support from communities to help keep our beaches' sustainability pristine long-term.



Example of a beach clean-up station.

Litta Traps

LHCC worked with the Town of Saugeen shores to install 4 catch basins (Litta Traps) in storm water drains. These are low maintenance filters fit into any storm water drain to help divert plastic that would otherwise end up in the lake.



Example of a Litta Trap. Prepared by: Lake Huron Coastal Centre, 2023

Microplastic Awareness Project

Lake Huron has a significant amount of plastic that will eventually break down into microplastics with higher densities being found close to shore. Some microplastic such as fibers are so small it can bypass screening at wastewater treatment plants and contaminate drinking water. More research needs to be done to understand how microplastic effects human and animal health.



Microplastic analyzation process.

The Process

LHCC conducts research on microplastic in Lake Huron biannually. Results from this year's data was derived from 60 one-liter lake water samples that were collected and tested in collaboration with Georgian Bay Forever. The lake water samples are analyzed by passing the

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samples through a very thin filter which catches any particles contained in the water. Staff then look at the filter under a dissecting microscope to look for microplastic.

2023 Microplastic Results

Findings from 2023 show that 88% of samples contained some form of microplastic, with a total of 224 microplastics observed. Microfibers were undoubtedly the most common type of microplastic at 164 recorded. This is consistent with the last two times this data was collected in 2018 and 2021. The second most common microplastic found was film at 45 recorded followed by microbeads at 14 then fragments at 1 recorded.



Number of microplastic recorded in 2023.



Map of microplastic collection sites in 2023. Link to map.

The map shown above is interactive, allowing people to click on the blue pins to find out what types of microplastics were found in each location.

Plastic Pollution Toolkit

Learn from LHCC's years of experience planning and hosting clean-up events on Lake Huron. This plastic pollution toolkit was created to help educate the public on plastic related issues as well as to share best practices so anyone can host a successful beach clean-up event. <u>Link to</u> <u>plastic pollution toolkit.</u>

Community Partnership

LHCC worked with 46 community partners and local businesses to help make this project a success. Building strong community connections was key to making a significant change to plastic pollution on Lake Huron and Georgian Bay. A lot of fun was had during the process! Click here to see the photo gallery from LHCC's 15 events: <u>Beach Clean-up Photo Gallery</u>.

Thank you to all the volunteers and partners who worked together to make a difference for our lake's beaches, water, and wildlife.



Lambton College Volunteers at Clean-up in Sarnia.