



IMPACT REPORT | 2020-2023-

GEORGIAN BAY
FOREVER



INVASIVE PHRAGMITES REMOVAL

Project Overview:

This initiative aims to manage, reduce and stop the spread of invasive *Phragmites* in Georgian Bay. While invasive *Phragmites* may look harmless, they actually have a devastating effect on North America's ecosystem. Invasive *Phragmites* are fast-growing, wide-spreading, and grow in very dense stands, dramatically reducing biodiversity as they spread. They impair wildlife, dominate shorelines, alter water levels, and diminish water quality. They also impact human life by causing property damage, increasing the risk of floods and wildfires, and obscuring recreation and shoreline views. Every year.

Georgian Bay Forever (GBF) seeks to address this issue through direct action by cutting down stands of invasive *Phragmites* using the cut-to-drown method, annually monitoring and mapping the growth and spread of invasive *Phragmites*, organizing community cuts, and educating the public on how to address this issue correctly. GBF's goal is to achieve an 100% eradication/control of invasive *Phragmites* by 2025, and has reached an 81% control rate as of 2023.

Overall Impact

| | 2020 | 2021 | 2022 |
|----------------------------|------|------|------|
| Total Sites | 711 | 904 | 968 |
| New Sites | 133 | 198 | 94 |
| % of sites Eradicated | | 403 | 514 |
| # of sites Cut | 170 | 279 | 270 |
| # of sites Controlled | 445 | 682 | 784 |
| # of sites untreated | 266 | 222 | 184 |
| % eradicated/ monitored | | 45% | 53% |
| % cut | | 31% | 28% |
| % controlled | 63% | 75% | 81% |

INVASIVE PHRAGMITES REMOVAL

Township of the Archipelago

| | 2020 | 2021 | 2022 |
|----------------------------|------|------|------|
| Total Sites | 65 | 67 | 69 |
| New Sites | 1 | 1 | 2 |
| % of sites Eradicated | | 52 | 54 |
| # of sites Cut | 13 | 13 | 7 |
| # of sites Controlled | 65 | 65 | 61 |
| # of sites untreated | 0 | 2 | 8 |
| % eradicated/ monitored | | 78% | 78% |
| % cut | | 19% | 10% |
| % controlled | 100% | 97% | 88% |

Township of Georgian Bay

| | 2020 | 2021 | 2022 |
|----------------------------|------|------|------|
| Total Sites | 432 | 523 | 514 |
| New Sites | 73 | 97 | 18 |
| % of sites Eradicated | | 267 | 334 |
| # of sites Cut | 112 | 146 | 115 |
| # of sites Controlled | 303 | 413 | 449 |
| # of sites untreated | 129 | 110 | 65 |
| % eradicated/ monitored | | 51% | 65% |
| % cut | | 28% | 22% |
| % controlled | 70% | 78% | 87% |

INVASIVE PHRAGMITES REMOVAL

Tay Township

| | 2020 | 2021 | 2022 |
|----------------------------|------|------|------|
| Total Sites | 214 | 270 | 305 |
| New Sites | 59 | 59 | 36 |
| % of sites Eradicated | | 847 | 117 |
| # of sites Cut | 45 | 102 | 110 |
| # of sites Controlled | 137 | 186 | 227 |
| # of sites untreated | 15 | 84 | 78 |
| % eradicated/ monitored | | 31% | 38% |
| % cut | | 38% | 36% |
| % controlled | 36% | 69% | 74% |

Matchedash Bay

| | 2021 | 2022 |
|-----------------------|------|------|
| Total Sites | 44 | 80 |
| New Sites | 41 | 40 |
| % of sites Eradicated | 0 | 9 |
| # of sites Cut | 18 | 38 |
| # of sites Controlled | 18 | 47 |

DIVERT & CAPTURE

Project Overview:

Divert and Capture is specifically focused around the issue of microplastic in Georgian Bay. When large plastic debris, enters the bay it never fully degrades. Instead, it breaks down into smaller and smaller pieces that accumulate in our environment which are nearly impossible to remove because of their size. To address this issue, Divert and Capture's efforts are centred around public education, hosting shoreline clean-ups, and installing microplastic filters in washing machines around Georgian Bay.

Filter Project 2018 - 2023

| | | |
|----------------------------------|--|---|
| 2018-2020 Pilot – Parry Sound | 2021 – 2023 Expansion – Collingwood, Wasaga Beach and Meaford | Total Filters Installed over program length |
| Goal: 100 Actual: 97 | Goal: 300 Actual: 304 | Goal: 400 Actual: 401 |

Kg's of Lint Diverted

| | | | |
|------------------------------------|--|--|---|
| 2018-2020 Pilot – Parry Sound | 2021 – 2023 Expansion – Collingwood, Wasaga Beach and Meaford | Total Kg's of Lint Diverted from Water | Estimated number of diverted Microfibres |
| Goal: 16 Actual: 22.8 kg | Goal: 20 Actual: 57.7 kg | Goal: 36 kg Actual: 80.5 kg | 2,254,000,000 to 34,051,500,000 microfibers. |

Shoreline Cleanups – ongoing

| | | | | | | |
|-------------------------------|-------------------------------|--|-------------------------------|-------------------------------|----------|--|
| 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Beyond 2024 |
| Goal: 10 Actual: 13 | Goal: 10 Actual: 16 | Goal: 10 Actual: COVID restrictions – no “organized cleanups” but staff did 26 | Goal: 25 Actual: 36 | Goal: 30 Actual: 47 | Goal: 50 | GBF hopes to continue to support cleanups at 50 or more per year |

DIVERT & CAPTURE

Amount of Garbage Collected during cleanups

| 2020 | 2021 | 2022 | 2023 | 2024 | Beyond 2024 |
|--------------------------------|---------------------------------|-----------------------------|--------------------------------|--------------|--|
| Goal: 16 kg Actual: 337 kgs | Goal: 100 kg Actual: 842 kgs | Goal: 500 kg Actual: 437 | Goal: 500 kg Actual: 575 kg | Goal: 600 kg | GBF aims to remove 600 or more kg's per year during cleanups |

Volunteers

| 2020 | 2021 | 2022 | 2023 | 2024 |
|---|--|---|---|--|
| Goal: 200 Actual: 179 Includes filter and cleanup | Goal: 200 Actual: 213 COVID restrictions – no “organized cleanups” – 144 people in their own “pods”, and 97 filter | Goal: 600 Actual: 569 Includes filter and cleanup | Goal: 600 Actual: 647 Includes filter and cleanup | Goal: 250 Only shoreline cleanup moving into 2024 |

Education/Outreach

| 2018 – 2021 | 2021-2023 |
|------------------------------|------------------------------|
| Goal: 1,300 Actual: 2,800 | Goal: 3,000 Actual: 4,086 |

DIVERSION 2.0

Project Overview:

Diversion 2.0 aims to prevent plastic from getting into the waters of Georgian Bay. Plastic pollution is becoming a real crisis in our water systems. The effects of all types of plastic pollution in our water can be seen, if not felt, all over the Great Lakes and its tributaries. Seeing as though plastic pollution, once in the water, is difficult, if not impossible, to remove. The focus of Diversion 2.0 is stopping plastic from getting into the water in the first place. This will be achieved through our classroom education initiatives, creating eco-friendly business networks and working with municipalities to install waste-capturing devices.

Number of Devices Installed in 2021:

| Gutter Bins | Trash Traps | Seabins |
|-------------|-------------|-----------|
| Goal: 8 | Goal: 2 | Goal: 7 |
| Actual: 8 | Actual: 0 | Actual: 8 |

Technologies combined amount captured:

| 2021 | 2022 | Combined weight |
|-----------------------|-----------------------|--------------------|
| Goal: none stipulated | Goal: none stipulated | Goal: 4,000 Kgs |
| Actual: 23,237 pieces | Actual: 25,412 pieces | Actual: 421.87 kg* |

*Seabins were only working for 3 months per season, not 12. Gutter Bins could only be emptied during 6 months of the year. The goal of 4,000 kg's was calculated if technologies were accessible and useable for all 12 months. Due to infrastructure requirements, chosen municipalities were unable to utilize trash traps properly, thus their collection is not included in weight totals.

Waste Characterizations

| 2021 | 2022 | 2023 | 2024 |
|------------|------------|----------------|----------|
| Goal: 20 | Goal: 30 | Goal: 35 | Goal: 40 |
| Actual: 41 | Actual: 46 | Actual: coming | |

Education/Outreach

| 2021-2023 | 2024 and beyond |
|-----------------------------|--|
| Goal: 2,000 | Goal: 20,000 with an increase of 2% per year |
| Actual: 15,000 and counting | |

Plastics Free Georgian Bay Members

| 2021-2023 | 2024 |
|-----------|----------|
| Goal: 20 | Goal: 20 |
| Actual: 8 | |

Yellow Fish Road Events

| 2021-2023 | 2024 |
|------------|---------|
| Goal: 20 | Goal: 5 |
| Actual: 20 | |

TAGGING TRASH TRIPS

Project Overview:

This research study seeks to gain insight into how pollutants interact with the waterbodies that they enter. Over 10 million tons of garbage and pollution enter our Great Lakes water every year from various point sources, including storm sewers, blowing trash, and littering. These GPS Tracked bottles will be deployed from pre-determined locations in order to track the route that waste and pollution may take. The GPS bottles will ping their locations every hour for a week. Pings are saved and uploaded into a database held by Global Star. Once the bottles are retrieved, they will be deployed again and tracked. This will happen five times a year starting in the spring/summer. During the off-season the data will be analyzed, considering currents, wind velocity and the routes outlined and models of trash trips created. Once these have been created, we will work to have an interactive map on our website so that interested parties can see the trash trips that the majority of waste is travelling from certain locations.

These trash-tracking trips will give valuable insight into how pollutants interact with the environment, helping inform policies. Policies aimed at upstream solutions and/or locations for technologies that can trap and/or remove waste before it has a chance to harm the water quality or flow out of Georgian Bay and into Lakes Huron/Michigan

Bottle Deployments:

| |
|-------------|
| 2023 |
| Goal: 5 |
| Actual: 6 |

Communications:

Social Channels – Goal: Continued growth across all channels at a minimum of 10%

| | | |
|-----------|-------|---------------------------|
| Facebook | 2,532 | Increase of 22% over 2022 |
| Twitter | 1,088 | Increase of 7% over 2022 |
| Instagram | 3,177 | Increase of 8% over 2022 |

E-blast signups

| |
|-------------------------------------|
| Goal: 100 |
| Actual: 76 new in the last 6 months |

Newsletter/E-blast outreach – transitioning from hardcopy to electronic

| Newsletter - 2024 | e-blast - 2024 | 2024 onward |
|---------------------------------|---------------------------|----------------------------|
| Goal: from 3,500 to 500 or less | Goal: from 3,693 to 4,000 | Goal: 2% increase per year |

CRITICAL CATCH

Project Overview:

The Critical Catch is a dynamic initiative focused on the vital conservation and protection of aquatic and terrestrial species. At its core, this project tackles the critical issue of marine debris, with a primary emphasis on derelict fishing gear. The health of our freshwater ecosystems is under threat from the rampant pollution of plastic waste, which persists for centuries. The devastating consequences of abandoned fishing gear, such as entanglement and death of aquatic wildlife, highlight the urgent need for action. The Critical Catch seeks to combat these issues head-on, through a multi-faceted approach, we aim to reduce the presence of devastating marine debris in our waters, engage the public, and foster a sense of stewardship among the community.

Monofilament Installations

| 2023 | 2024 | 2024 and beyond |
|------------------------|---|--|
| Goal: 15 Actual: 15 | Goal: 10 Actual: Goal: find partners to help manage. If successful, we aim to install 10 a year | Goal: find partners to help manage. If successful, we aim to install 10 a year |

Personalized Monofilament Containers

| 2023 | 2024 | 2024 and beyond |
|-------------------------------------|----------------------|-----------------------------|
| Goal: 500 handed out Actual: 225 | Goal: 500 Actual: | 500 a year for program life |

In Class Fish Hatchery

| 2023 | 2024 and beyond |
|--|--|
| Goal: 10 classrooms Actual: 0 (September recruitment) | Goal: find 2 additional schools per year |

Citizen Scientist Using Marine Tracker App

| 2023 | 2024 and beyond |
|-----------------------|---|
| Goal: 30 Actual: 0 | Goal: increase awareness and use of app by 10% yearly |

Partners Helping to remove underwater/shoreline debris