

2023 Impact Report





The Watershed Center Grand Traverse Bay advocates for clean water in Grand Traverse Bay and acts to protect and preserve its watershed.

BOARD OF DIRECTORS

- Acting Chair*
Richard Kane
- Secretary*
Nicole VanNess
- Treasurer*
Christopher Carol
- Directors*
Isaac Avila
Kelli Mengebier
Christine Petersen
Royce Ragland
Brittany VanderBeek

STAFF

- Executive Director*
Christine Crissman
- Program Director*
Sarah U'Ren
- Grand Traverse Bay WATERKEEPER®*
Heather Smith
- Director of Philanthropy*
Michelle Handke

CONNECT WITH US



www.gtbay.org



@watershedcenter



info@gtbay.org

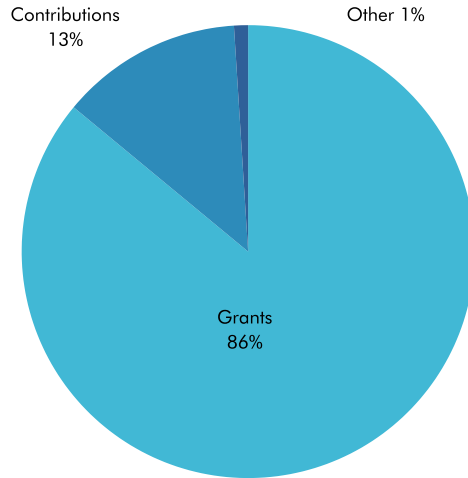


@gtbaywatershed

The Watershed Center is a proud member of the WATERKEEPER® Alliance.

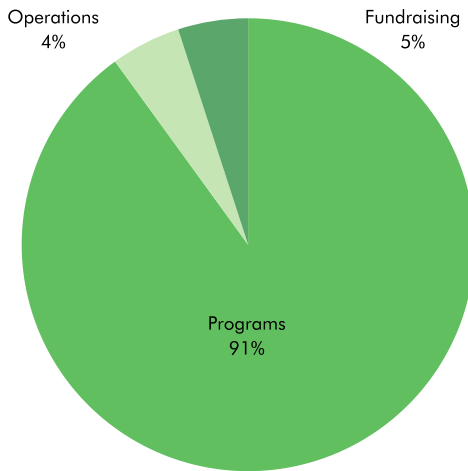


**SUPPORT
\$1,267,933**



Public Grants \$1,094,180
Contributions \$155,922
Other (includes interest and in-kind) \$17,831

**EXPENSES*
\$1,339,596**



Program Services \$1,213,799
Operations \$58,054
Fundraising \$67,743

*Temporary restricted donations received in 2022 as part of our Sustainability Campaign were utilized in 2023

Road Salt Monitoring

Road de-icing agents often contain chloride salts that break apart when they dissolve in water. Chloride is known to have adverse and lethal effects on fish, invertebrates, and plants so when real-time monitoring stations in Kids Creek showed an increased level of conductivity (synonymous with chloride levels), we wanted to evaluate whether elevated chloride levels are found elsewhere in the Grand Traverse Bay watershed.

We trained volunteers to collect conductivity data using hand-held probes to determine the potential impacts of road salts in the Elk River Chain of Lakes. Chloride concentrations were far below the state's chloride standards, likely due to the limited amount of impervious surfaces upstream of the sampling sites. This shows that chloride is not currently an issue in the Elk River Chain of Lakes, but we intend to duplicate this monitoring effort in 5 years to observe potential changes. By engaging volunteers and sharing our data, this project brought awareness to this important issue facing lakes and streams in the Great Lakes region.



"I believe it is extremely important that The Watershed Center continues to monitor the water quality in the Grand Traverse Bay watershed and that we, as citizens concerned about the environment, support the organization's efforts."

- Bob, Leadership Circle member



For thirty years, The Watershed Center has passionately championed the well-being of our local waters thanks to the unwavering support of individuals like you. Your generosity fuels our mission to be a voice for our waters, igniting conversations and fostering collaborative efforts to safeguard our most precious natural resource.

Great Lakes Plastic Cleanup

Through our partnership with the Great Lakes Plastic Cleanup and the generous funding and support provided by Meijer, we used autonomous robots to clean up beaches and nearshore areas along Grand Traverse Bay. Deployment of technology that removes trash along the shoreline prevents man-made products such as plastics and other litter from threatening our drinking water and the health of fish and wildlife.

The BeBot is a 100% electric, eco-friendly beach cleaning robot that mechanically sifts sand to remove plastic waste and other debris. The PixieDrone is a floating, remote-controlled waste collector that targets floating waste in all forms.

On average, 600 pieces of debris were collected at each beach clean up event. The top 3 items found were plastic fragments, cigarette butts, and paper/cardboard. In addition to collecting small debris using these robots, we also hosted several volunteer beach clean up events where nearly 100 volunteers collected several hundred pounds of trash from the shoreline of Grand Traverse Bay.



Restoring Kids Creek

Through partnerships with Meijer and the City of Traverse City, we continued our restoration efforts on Kids Creek, an impaired stream on Traverse City's west side. We created a stormwater wetland at the north end of the Meijer parking lot where native grasses and plants are working their magic on stormwater coming from Meijer's roof and back alley.



We also re-established a buffer along the main branch of Kids Creek on City of Traverse City property between Silver Lake Road and US-31/M-37. Nearly 3,000 trees and shrubs now line the banks of the creek, stabilizing the shoreline, reducing erosion, slowing floodwaters, and increasing stormwater infiltration. These efforts will improve water quality and reduce stormwater, sediment, and nutrient inputs into Kids Creek, helping us to remove it from the impaired waters list.

Bacteria at Our Beaches

For two decades we have conducted *E. coli* testing at Grand Traverse area beaches. The presence of *E. coli* indicates fecal contamination is present at the beach, which includes a host of other harmful viruses and bacteria. To reduce the threats to public health due to elevated bacteria levels, it is essential to know the source of bacterial contamination so proper steps can be taken to lower the inputs.

We analyzed water samples collected at area beaches for potential bacterial contamination from human, cow, pig, canine (dogs, foxes, and coyotes), and gull sources. The gull marker was found in 89% of the samples and the canine marker was present in 13% of the samples. The rest of the markers tested were virtually non-existent with levels barely above the detection limit when present. This suggests most of the elevated bacteria levels at beaches in the Grand Traverse region come from animal sources.



Monitoring Water Quality at Public Beaches

The Grand Traverse County Health Department and The Watershed Center Grand Traverse Bay monitor this beach for *E. coli* bacteria levels.

Note: Beach Samples are routinely collected once a week, Memorial Day through Labor Day. Therefore *E. coli* levels may not meet MDEQ standards between sampling days. *E. coli* levels are usually higher after a storm.



(231) 935-1514

(231) 995-6051



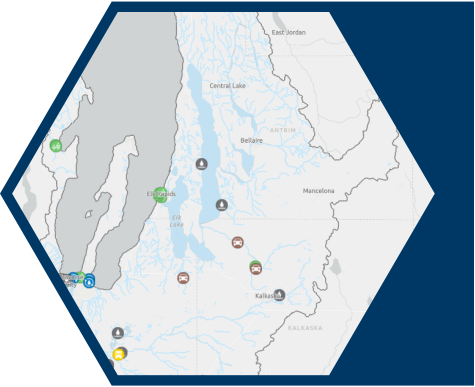
On Tap with TWC

Always eager to connect with fellow community members who share our passion for protecting our local waters, we kicked off On Tap with TWC, a series of happy hour gatherings hosted throughout the watershed. We enjoy these casual opportunities to learn more about fellow water advocates, share insights on project and policy efforts, and reflect on our shared love for our region's water.



Fly Rod Raffle

We teamed up with three local craftsmen and artists to offer a unique opportunity to win one of three hand-crafted prizes. Proceeds from raffle ticket sales supported clean water across the Grand Traverse Bay watershed by strengthening and expanding our capacity to provide communities access to the scientists, policy experts, and resources needed to prioritize the health of our waters.



Interactive Maps

There are two essential aspects of our efforts that help us identify and assess threats to water quality and find sustainable solutions to repair and improve our water - monitoring and restoration. We created a series of interactive maps to display the locations and information associated with our monitoring and restoration sites.



New Zealand Mud Snails

In spring, one of our volunteer Adopt-A-Stream teams sampling the main branch of Four Mile Creek discovered hundreds of New Zealand Mud Snails. This invasive snail has the potential to negatively impact aquatic ecosystems and is easily spread by recreational activities such as boating and fishing. Since then, New Zealand Mud Snails were also found in the main branch of Mitchell Creek, the main branch of Kids Creek, and the Rapid River.



Reducing Stormwater in Northport



We continued our partnership with the Village of Northport to reduce stormwater inputs into Grand Traverse Bay coming from the Main Street stormdrain. We installed a series of underground infiltration trenches in the Northport Public School parking lot. These infiltration trenches prevent 960,000 gallons (nearly 2 Olympic size swimming pools) of stormwater from entering the bay each year.

By reducing stormwater inputs into Grand Traverse Bay, we are also reducing its associated pollution input such as sediment and nutrients. Since the Main Street stormwater drain outlets next to the Northport Harbor, these efforts also reduce bacterial inputs to recreational waters and protect the health of beachgoers.

Adopt-A-Stream

For 20 years, we have worked with volunteers to collect reputable data used to determine the health of streams in our region. This valuable information has deepened our understanding of stream health, guiding our efforts to ensure a sustainable future for these vital waterways.

Over 100 volunteers monitored 24 sites on 20 streams throughout the Grand Traverse Bay watershed in 2023. In addition to collecting important data, these volunteers enriched their understanding of water quality issues and sense of freshwater stewardship.



The Northern Angler Fly Shop feels that the water and stream monitoring TWC does is incredibly important for protecting our warm and cold water fisheries. We are happy to support TWC to enhance and protect the wonderful resources we are so fortunate to have in our area.

- Brian, owner The Northern Angler

Taking Action Against Water Pollution

The Watershed Center, Grand Traverse Band of Ottawa and Chippewa Indians, and Elk-Skegemog Lakes Association filed a Clean Water Act suit against Burnette Foods, Inc. Burnette Foods discharges its fruit processing wastewater using spray irrigation fields under the requirements of a groundwater permit issued by the Michigan Department of Environment, Great Lakes, and Energy.

This suit is the result of over a decade of Burnette Foods routinely applying wastewater that exceeds their permit requirements and is adversely impacting water quality in the groundwater, wetlands, Spencer Creek, and Elk Lake. Any actions taken to bring Burnette into compliance have been insufficient so we are seeking a resolution that will identify and ensure timely implementation of solutions that fully protect and maintain water quality in this area.



96%

Water samples from local beaches within bacteria water quality standards

\$1M

Grant funding spent to protect, restore, & monitor our water

2K

Hours dedicated volunteers contributed in support of our efforts

50+

Times provided expert analyses & resources to local units of government



When you make a gift to The Watershed Center, you are making a powerful investment in the protection of the lakes, rivers, and beaches you hold so dear. Please help us keep healthy water a priority throughout the watershed by making a gift today.



www.gtbbay.org