



# Reconnect with your environment

Learn about environmental issues, their effect on your community and actions for your involvement.



DAVE SKELLIE/Contributed photo

Share your vision for the Erie region at one of the workshops.

## Workshops give you chance to vote on vision for Erie

By ANNA McCARTNEY  
Contributing writer

Vote for your choices for Destination Erie's regional long-range plan by attending any of the workshops today or Wednesday at the following locations:

### Today

**Girard:** 9-11 a.m.  
St. John's Parish Center  
1001 Main Street East.

**Waterford:** 7-9 p.m.  
Fort LeBoeuf High School  
931 N. High St.

### Wednesday

**Harborcreek:** 9-11 a.m.  
Fairfield Social Hall  
4896 East Lake Road

**Erie:** 7-9 p.m.  
Avalon Hotel-Niagara Room  
16 West 10th St.

If you miss the meetings, you will also be able to vote at [www.planerieregion.com](http://www.planerieregion.com) between May 9 and June 30.

### Correction:

The regular unused medicine drop-off box in Lawrence Park is located at the local borough police department at 4230 Iroquois Ave, not the State Police Barracks.

ANNA McCARTNEY, a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at [axm40@psu.edu](mailto:axm40@psu.edu).



BILL EDWARDS, NIAGARA UNIVERSITY/Contributed photo

Last July seven research scientists and 20 college students, led by Sherri Mason, Ph.D., from SUNY Fredonia sailed on the U.S. Brig Niagara to conduct the first-ever freshwater survey of Great Lakes plastic pollution. They found an extremely high amount of micro-plastic. The highest concentrations occurred in Lake Erie between Dunkirk, N.Y., and Erie.

# Permanent markers

## Don't clog Lake Erie with plastic pollutants

By ANNA McCARTNEY  
Contributing writer

Our quest to make life easier with disposable products isn't so convenient when you consider that plastic pollution is circulating in the ocean, fouling beaches and even making it's way into the food chain.

When researchers sailed across the Great Lakes on the U.S. Brig Niagara last summer to document plastic pollution in freshwater, they expected to find plastic there, too.

However the researchers, led by SUNY Fredonia chemistry professor and researcher Sherri Mason, were surprised to find that areas of Lake Erie have some of the highest plastic counts ever recorded. In fact, the highest levels of plastic concentrations they found were between Erie and Dunkirk, N.Y., with more than 600,000 plastic pieces per square kilometer. The vast majority contained pieces less than five millimeters wide, plastic so small it can't be seen just looking at the water. Many were less than one millimeter.

Findings from this new research raise questions about why there are so many super-tiny particles in the Great Lakes and where they come from. Are they fragments of bigger items that degrade into smaller and smaller pieces? Do they come from cosmetic cleansers containing plastic micro beads that are routinely washed down the drain? Or is the origin of these microplastics something entirely different? Those questions and more are ones Mason's team hopes to answer with continued research on the Great Lakes this summer.

Whatever the source, everyone agrees the plastics started out on land and their presence in the water is not acceptable.

Because plastics don't biodegrade but break down to smaller and smaller particles, they pose problems for water quality, wildlife and people. Marine animals often get entangled or trapped, or mistake the plastics for food. Birds eat floating plastic and die because they can't digest it. And microplastics can enter the food chain at any level, including phytoplankton, fish and people.

Plastic also readily absorbs toxic chemicals from the water, including DDT and other persistent organic pollutants (POPs). Scientists studying fish samples for plastic debris in the guts of fish wonder whether the accidental consumption of microplastics might be a new source for toxins in the food chain.

Anyone who has participated in beach cleanups can tell you the majority of items collected are made of plastic — even the cigarette butts. There is no doubt single-use plastics are the greatest source of plastic pollution. Plastic bags, straws, bottles, utensils, lids, cups, facial scrubs with plastic beads, and so many others offer a small convenience but remain forever.

With so much plastic waste already in the water, there is no realistic solution for removing it. So next time you quench your thirst, eat a meal, wash your face or carry purchases in a bag, do it without disposable plastic. Switch to products that can be reused indefinitely such as glass, stainless steel or bags made of cloth or other strong fabric. A sustainable lifestyle that protects water resources can only be achieved by eliminating plastic waste and other pollution.

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ANNA McCARTNEY/Contributed photo

Single-use plastic items are carried by stormwater to rivers, lakes and eventually the ocean. All the world's nets and fishing fleets could not make a dent in removing the staggering amount of plastic adding up in the water because it never biodegrades.



5 GYRES INSTITUTE

Researchers found plenty of micro-plastics, which measure less than 1 millimeter in diameter. Some broke off from larger pieces over time. The tiny round pieces could be micro-beads used in facial scrubs. They slide right through the wastewater treatment plants.



ALGALITA MARINE RESEARCH FOUNDATION

The findings of Lake Erie researchers are troublesome because the micro-plastic is often the same size as fish eggs, something that is eaten by local marine life and thereby enters the food chain.



CONTRIBUTED PHOTOS

Madasynn Faulkner, left, and Damarshanna Mims

## Youngsters recount their trip to TREC

By ANNA McCARTNEY  
Contributing writer

All of the kids at Neighborhood Art House want to thank the Friends of the Tom Ridge Environmental Center for funding our trip and the Environmental Educators at the TREC. We all had a great time and learned a lot of new things!

We went up a 75-foot tower with a nice view of the woods, the grasses and Lake Erie. We acted like black bears and had to find food and water cards to help us survive. Food, water, shelter and space are the four parts needed in every habitat.

We found out how Presque Isle State Park was made, and watched a movie on the Big Green Screen that looked 3D, "Dinosaurs Alive."

The movie showed how paleontologists found dinosaur bones and how they pieced all the bones together.

— Madasynn Faulkner

### Discovery

All types of dinosaur bones Almost made the paleontologists groan

So many shapes and sizes They almost look like prizes They were white and gray I wonder how much they weigh Brushing and brushing What can I find?

Do you think I will find a spine? When I find it, It will be mine Hot and the sun is shining down

I see them all around And what is the sound I hear it all around As I ask what is on the ground No more dinosaurs No more found.

— Damarshanna Mims

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Find examples of good ads that get their point across to readers. What are some of the techniques they used?

Design an ad to educate readers about the problems of plastic in Lake Erie. Be sure to provide solutions people could use at home to keep one-use disposable plastic out of the lake and oceans. Send your ads to [axm40@psu.edu](mailto:axm40@psu.edu) for possible publication in the weekly "your space" feature.

