



CLEANER HEALTHIER WATERS

Love Our Waterways Official Launch Meeting: 1.26.24



LOVE OUR WATERWAYS CLEANER HEALTHIER WATERS

Whether you are a native Michigander or a transplant who just moved here, you were called to be here to protect and steward this beautiful state. Michigan's greatest natural resource may be its abundance of fresh water.

Michigan is blessed with 20% of the world's fresh water. We have access to four Great Lakes; Michigan, Superior, Huron and Erie and 2,963 miles of Great Lakes shoreline. Running through our state we have approximately 51,438 miles of river, of which 656 miles are designated as wild and scenic.

No other state is blessed with as much fresh water as Michigan. It is up to us to protect and care for our treasured and vulnerable waterways. If we don't, who will? Imagine the consequences if we fail.

www.LoveOurWaterways.org



LOVE OUR WATERWAYS CLEANER HEALTHIER WATERS

We will be the contemporary version of Woodsy Owl and its Give a Hoot Don't Pollute national environmental education campaign that began in the early 70s and quickly tired out.

Love Our Waterways messaging and design will be inviting, compelling, user friendly, and engaging. Think of it as being a coffee table quality book designed for environmental education. Its impactful graphics and photography will hold the viewer's attention, prove inspiring, and having them wanting to learn more.

We have a unique challenge as we're simultaneously targeting three distinct target audiences:

Children:	Grades K-5	Young and impressionable, future stewards.
Young Adults:	Ages 18 - 24	Young adults. High likely violator.
Early Empty Nesters	Ages 40 - 60	Parents of older children and empty nesters. Often community leaders.

While we can work to create strategy and content for all three, a slight preference will be given to targeting the adult populations due to the immediate crisis in East Lansing and MSU with the recent discovery of hundreds of lithium powered scooters and bicycles having been tossed and abandoned to our Red Cedar River.



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As we begin developing Love Our Waterways, it is essential that we attract and maintain like-minded, high-quality talent, that lives the mission. We're off to a good start:

Founding Team

Michigan Waterways Stewards
MSU Extension Services
Potter Park Zoo

Mike Stout, President and Founder
Rachel Ochylski, Ingham County 4-H Program Coordinator
Rachel Marlatt, Conservation Engagement Specialist

Other Contributors

R.E. Olds Foundation
Bird Global

Diana Anderson Tarpoff, Community and Engagement.
Jimmy Gillman, Head of Government Partnerships



LOVE OUR WATERWAYS
CLEANER HEALTHIER WATERS

We will incorporate a portfolio of interactive tools to attract, engage, and retain our viewer's interest, thus increasing desired conversion rates. Conversion is being defined as having created a well informed and motivated environmental steward.

LOVE OUR WATERWAYS CLEANER HEALTHIER WATERS

SKIP THE SINGLE-USE PLASTIC AND SAVE AQUATIC LIFE!

Authored by Rachel Marlatt, Potter Park Zoo Conservation Engagement Specialist

Plastic is so common that there is more plastic made now than ever before. Plastic consumption reached 320 million tons this past decade alone. People are running out of places to put their trash and that is becoming a major problem. Overflow from landfills, garbage bins, and litter is reaching the oceans. Researchers have found that 60 to 90 percent of plastic found in marine environments comes from landfills. The amount of plastic and other waste has grown so much in recent years that there is a garbage island in the Pacific Ocean, called the Great Pacific Garbage Patch (GPGP). The GPGP is now double the size of Texas.

Penguins and other marine life are affected by both whole plastic waste and microplastics in the ocean. In New Zealand, plastic waste is being found in the nests of little blue penguins. Plastic that is broken down into microplastics is being found in gentoo penguins in Antarctica. It isn't just penguins, all marine life are negatively affected by plastic in the ocean, but we can help them!

A poll was conducted that found 84 percent of the people polled in the United States cared about how plastic is affecting marine life and we believe you care too!

How Can I Make A Difference?

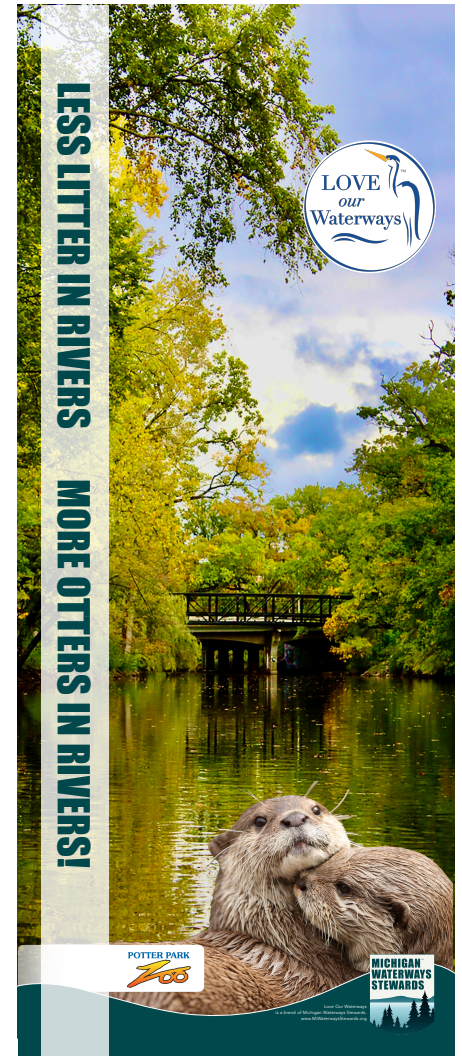
One way we can help is by eliminating or reducing our use of single-use plastics.

Cups, Lids, and Straws

A reusable cup is a good way to replace both single-use plastic cups and lids. Do you often grab a soda or coffee from the gas station or local coffee shop? You can purchase reusable cups at many gas stations, coffee shops, or restaurants. Alternatively, check your local recycling laws to see if fast food cups are recyclable in your area. If buying your reusable cup for every place you go to is not an option, you can make drinks at home and bring them with you in a personal reusable cup of your choice!

Plastic straws are dangerous because they might look like good nesting material for a penguin or a nice snack for sea turtles. Skipping the straw altogether is the best way to go. If a straw is needed then silicone, metal, and bamboo options are great reusable alternatives to plastic.

Continued on next page.



LOVE OUR WATERWAYS CLEANER HEALTHIER WATERS

SKIP THE SINGLE-USE PLASTIC AND SAVE AQUATIC LIFE! *Continued*

Utensils

Like straws, disposable utensils can be replaced with reusable utensils, with many options available to consumers. Going out to eat? Don't want to bring your good silverware from home to the restaurant? There are portable options made from bamboo, wood, metal, or hard plastic. These options can be inexpensive and often come in small carrying cases. Bring your reusable silverware with you if it's a place that has single-use plastic or take your food to go and enjoy it at home.

Food Wrappers

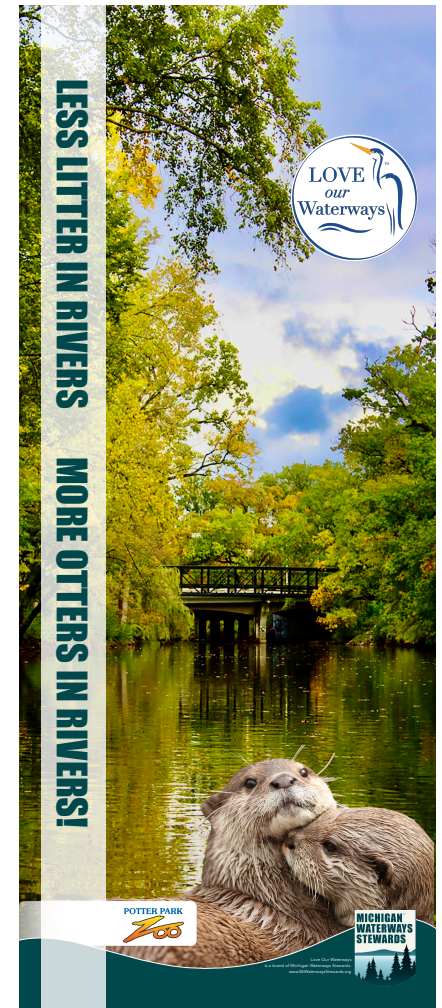
Food wrappers are the most difficult type of single-use plastic to reduce use. Granola bars, fruit snacks, and single bags of chips are often found in the lunches of children across the world. While the use of some of these items is unavoidable, some options are available to live more sustainably. Reusable cloth or silicone bags and wax wraps can be used to hold items from larger bags. This can reduce the amount of plastic being sent out into the landfill. Alternatively, look for compostable sandwich bags in the same aisle where you find the plastic ones.

In this digital age, it is easy and convenient to purchase items online. These items are typically wrapped in plastic bags. When plastic bags from both shipped products or from local shopping are in the ocean, they look exactly like a nice jellyfish snack to hungry marine life. A solution is to shop local, use a reusable bag, and when forgotten choose recyclable paper over plastic.

Last summer, my husband and I challenged ourselves to reduce or eliminate single-use plastic wherever we could. I challenge you to do the same! By reducing single-use plastics in just one of these categories, you can help save wildlife and our planet. So, skip the single-use plastic and save some penguins (and other marine life)!

Penguins and other marine life are affected by both whole plastic waste and microplastics in the ocean. In New Zealand, plastic waste is being found in the nests of little blue penguins. Plastic that is broken down into microplastics is being found in gentoo penguins in Antarctica. It isn't just penguins, all marine life are negatively affected by plastic in the ocean, but we can help them!

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4-H Club Meeting 3

What Would We Do Without Wetlands?



Supplies

- Pillowcase or opaque box
- Sponge
- Small pillow
- Soap
- Eggbeater or mixer
- Small doll cradle
- Sieve or strainer
- Coffee filter
- Antacid tablets
- Oatmeal packet

INTRODUCTION

In this club we will explore nature in our own backyard. Today we will use a metamorphic approach to understand the function and importance of wetlands for our human and wild communities.

PRIOR TO THE MEETING

Prepare a Mystery Metaphor Container using an old pillowcase or opaque box that students can reach into in order to pull out the objects listed under the supplies.

What to Do:

WHAT IS A WETLAND?

"Take some low-lying land, add water, mix in lots of plants and animals, and you have a wetland!"

You may very well have a wetland habitat in your local area. Anything ranging from a small area of ground that is relatively spongy for a portion of the year, to a large area that is covered year-round by shallow water may be a wetland. Swamps, marshes, bogs, fens, and wet meadows are considered wetlands. The area around shallow ponds, lakes, rivers, and streams may harbor wetland areas.

Many of the functions of wetlands can be explored through metaphors. A metaphor is a direct comparison between two things. It gives a comparison between two things that are not alike and replaces the word with another word (not to be confused with a simile, which uses the words "like" or "such as" to form a comparison).

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Activity #1

WETLAND INTRODUCTION

Time: 15 minutes

1. Begin by making sure participants have a clear understanding of what a wetland is. Discuss the definition, and then have them list the variety of wetlands found in your local area, city, or state.
2. Ask students to describe a particular wetland in your area. What does it look like, what type of plants and animals will they find there, how does the air feel, how does the wetland smell, etc.
3. Next, ask the participants what they think some benefits of a wetland might be. If they do not have many answers, that is okay! This topic will be covered more in depth in the next activity. Examples may include:

- **Fish and Wildlife Habitat:** Many animals depend on wetlands for homes and resting spots since they provide food, cover, and water. Fish, amphibians, reptiles, aquatic insects and certain animals require wetlands as a place for their young to be born and raised.
- **Sponge Effect:** Wetlands are said to act as sponges because wetland soils can readily absorb water. This means water that flows over wetlands is slowed and absorbed, reducing flood damage downstream. Also, the absorption of surface water ensures a long-term supply of quality ground water, as well as a good supply of water in times of drought.
- **Filter Effect:** By trapping and holding water, wetlands store nutrients (from fertilizers and other sources) and other pollutants, and filter out sediment, allowing cleaner water to flow to the body of water beyond the wetland. Vegetation, like cattails and willows, can absorb some of the pollutants that remain in the soil.
- **Erosion Control:** Wetland vegetation reduces erosion along lakes and stream banks. The deep-binding root masses of wetland plants anchor stream banks, preventing sediment from entering the stream.
- **Biodiversity:** Wetlands are some of the most diverse ecosystems on the planet.

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Michigan

Local Rivers to the Great Lakes

THERE ARE 120 MAJOR RIVERS IN MICHIGAN COVERING A TOTAL OF ROUGHLY 36,350 SQUARE MILES



Red Cedar River

- Originates in Livingston County (Southeast of Lansing)
- Flows North and then West for roughly 51 miles with a water shed covering 472 square miles
- Ends by joining the Grand River

ALMOST 22 MILLION POUNDS OF PLASTICS ENDS UP IN THE GREAT LAKES!

How can trash from the Red Cedar River end up in Lake Michigan?

Plastics and other litter can make it's way from Lansing via the Red Cedar River! The Red Cedar River flows north and then west into the Grand River which flows into Lake Michigan at Grand Haven, Michigan.



Save Water

Every Drop Counts

MULCH Retains Water

Turn Off Water When Not In Use

Collect Rain

Remove Weeds

More Efficient

Buy DROUGHT TOLERANT Plants

Shorter showers instead of baths

COMPOST

POTTER PARK Zoo

The infographic features several water-saving tips in circular icons: a house with a rain barrel for 'Collect Rain'; a hand turning off a faucet for 'Turn Off Water When Not In Use'; a wheelbarrow of mulch for 'MULCH Retains Water'; a person weeding for 'Remove Weeds'; a toilet and a water-saving device for 'More Efficient'; a shelf of drought-tolerant plants for 'Buy DROUGHT TOLERANT Plants'; a person taking a shower for 'Shorter showers instead of baths'; and a bucket of compost for 'COMPOST'. A central blue water drop contains the text 'Every Drop Counts'. The Potter Park Zoo logo is in the bottom right corner.

70% of the world is covered in water.

WHERE IS THE

2.5% of all the World's Water is Fresh Water

Fresh Water
2.5%



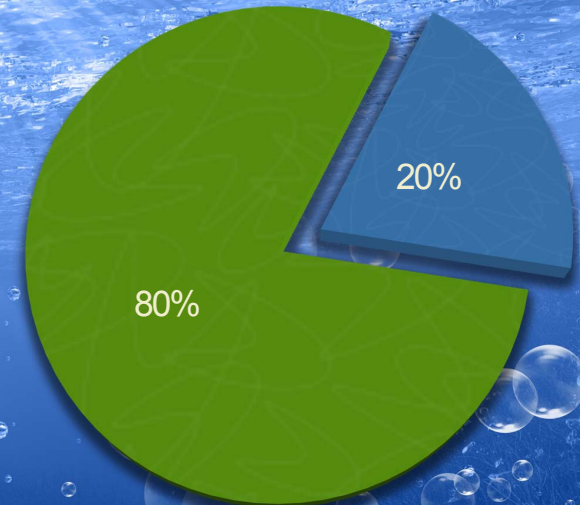
Most of the
reached and

- Fresh water
- Deep Gro
- Usable Su

Usable Surface or

Of the World's accessible or usable
0.4% Fresh Water
about 20% is in the
Great Lakes Basin

- Great Lakes
- The Rest of the World





Things to do ▾

Places to go ▾

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Salmon in the Classroom



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WE ALL HAVE A SHARED RESPONSIBILITY TO PROTECT AND CARE

Lake Michigan



Red Cedar

PCI's Marquette River

Grand River

Kalamazoo River

**MICHIGAN
WATERWAYS
STEWARDS**

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LESS LITTER IN RIVERS MORE OTTERS IN RIVERS!



POTTER PARK
ZOO

**MICHIGAN
WATERWAYS
STEWARDS**

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If you witness any malicious behavior
call your local authority.



www.MiWaterwaysStewards.org

Protect Our Treasured Waterways.

If you witness any malicious behavior call your local authority.

Photo credit: Mark Kocherovsky, MSU photography club.



Love Our Waterways is a brand of Michigan Waterways Stewards.
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Protect Our Treasured Red Cedar River.

If you witness any malicious behavior call your local authority.

Photo credit: Mark Kocherovsky, MSU Photography Club.



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*Have
a Wild
Adventure*



BOOKMARKS FOR YOU TO COLOR



MICHIGAN WATERWAYS

DUCKY DERBY

A CLEAN RIVER RUNS THROUGH IT

Presented by

YOUR
LOGO
HERE

**ADOPT A
RUBBER DUCK
ONLY \$5.00 EACH**

MAKE A DONATION



Raising monies for Lansing area waterways stewardship and environmental education.