Clean Water Action Council

OF NORTHEAST WISCONSIN

Celebrating 34 years of working to protect public health and the environment in Northeast Wisconsin

WINTER 2018-2019

We Are Drowning in Plastic!

Join the Efforts to Reduce Plastic Use

Introduction by CWAC President Dean Hoegger

The global market for recycling waste has changed dramatically in recent months primarily due to China closing its doors to plastic waste and other recyclables. This has led to projections of over 100 million tons accumulating by 2030. It is obvious that we need to develop more industries in America to reclaim plastic waste before it is landfilled or deemed a waste-to-energy fuel. It is even more obvious that we urgently need to reduce our use of single-use plastic.

Across the nation we are seeing localized efforts to reduce availability of plastic convenience products, such as straws and single-use bags. These low hanging fruits, while largely symbolic, were partially protected by Governor Walker in Wisconsin with AB730 in 2016. It is time for change!

While the concern for plastics being landfilled or burned is better known, the degree of environmental contamination is not. Plastic pollution in our oceans and the Great Lakes is often publicized regarding its impact on fish and birds. The photographic evidence has brought greater awareness. Wisconsin even acted quickly to protect our lakes with a ban on microbead products.

However, there is far less awareness about how pervasive microplastics are. These can result from the breakdown of plastic from physical action, such as waves and exposure to sunlight while in oceans and lakes or during the sewage treatment process. These microparticles may even be as small as viruses. They are ingested by a wide range of animals where they can penetrate the gut lining, become part of flesh, and then be consumed by other animals including humans.

Microplastics are also land spread in the form of sludge from waste-water treatment plants. In the soil they can contaminate ground and surface waters or be consumed by micro- and macroorganisms at the bottom of the food chain.

In this issue you will learn more about the plastic problem and find ideas for alternatives to many forms of plastic. ***Will you join the efforts to reduce the use of plastic?***

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make."
—Jane Goodall

Choosing Glass Over Plastic Bottles

By David Verhagen

More than a century ago, there were only glass bottles. These glass bottles were expensive, so they were refilled at the tavern or grocery one at a time from bulk containers when one purchased what was going into them.

Photo courtesy of Lamers Dairy

The twentieth century brought mass production, and soon bottles were available pre-filled with product. By the end of World War II, beverage makers were selling their cheap soda and beer in glass bottles, but they charged a nickel deposit for each one. Customers could return them to the store and get their nickel(s) back. Returned bottles were transported, washed, sorted, and refilled an average of six times before needing to be replaced. The return rate for bottles was nearly 96%.

Around the early 1960's the largest beverage makers ramped up production to gain a sales advantage with "No Deposit, No Return" plastic bottles. Convenience became a new product feature.

Indeed, plastic containers cost less to buy than glass ones. They were lighter in weight and cheaper to transport to the customer. Even more appealing to manufacturers, they could easily be custom-shaped so that the container itself became a part of the product advertising campaign. Container shapes became so valuable that they were trademarked, thus "branding" the bottle with the identity of the manufacturer.

The continual adoption of new compositions of plastics outstripped society's ability to keep up with learning their potential toxicity. Compounds were incorporated into packaging because of how they improved a product's cost and convenience. The costs to human health and product disposal was never accounted for in the price of any these plastics, giving them a false cost advantage. It is only since the early 2000's that these costs are being recognized. Public health bulletins now advise:

"*Consumers are warned not to drink beverages from plastic bottles that have been warmed in the sun or in storage. Compounds leech out of plastics over time into the beverage, especially at warm temperatures.*"

Toxic ingredients such as bisphenol A (BPA) have found their way into almost half the containers made today. As the hazards of BPA have been documented, customers are demanding BPA be removed. It is little comfort to know that BPA is being replaced with bisphenol F (BPF) and bisphenol S (BPS), which are similar to BPA but which have yet to be studied for their own toxicity. In addition, including these ingredients in a plastic product makes it impossible to recycle such containers, thus adding to landfills and ocean degradation.

Microparticles of plastic are now found everywhere. A University of Ghent, Belgium study found that by eating seafood weekly, diners ingest 11,000 tiny plastic bits each year. A small study by the Medical University of Vienna (Austria) found plastic particles in every participants' stool samples. Food diaries showed they drank from plastic water bottles and ate food that had been wrapped in plastic in the week before being sampled. Recycled plastic fibers used in fabrics, such as fleece and in jacket insulation are shed during laundering and wind up in rivers, lakes, and ultimately, the oceans.

The most easily recycled plastic containers are made from polyethylene terephthalate (PET, PETE) and are labeled with a #1 inside the recycling symbol. They are used mostly for drinking water and beverage bottles. Plastics degrade every time they are recycled. Bottles become carpeting or textiles which do not recycle, ending up in oceans or landfill. Some recycled PET is used in making new bottles, but due to degraded strength, recycling levels must be kept to a low percentage. We now produce a million PET bottles per minute, 91% of which are NOT being recycled.

When comparing containers, plastic's main advantage over glass is measured only in its initial costs to the manufacturer. Glass containers better address the overall costs of mining, making, transporting, and disposing or recycling of food containers. A complete life cycle carbon footprint analysis of glass and plastic bottles shows that glass has a smaller carbon footprint when it is reused. Unless it is recycled or reused, recycled aluminum edges out glass' sustainability overall, but plastics always come in last.

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Glass manufacturers have been developing more efficient containers to compete with plastics. Current glass refillable bottles are used an average of 30 times, and then can still be 100% recycled. Shapes, colors, and textures to build branding now compete with the best that plastics can offer. Even the weight of bottles has been reduced by 40%.

Glass has its own advantages. Glass bottles are both impermeable and stable. There are no exotic compounds to leech out of glass; it is made from sand, limestone, and soda ash. The impermeability of glass is both a health and a quality advantage. Glass retains product taste and freshness better, and it resists contamination far longer than any plastic container.

In our region, about 25% of the glass deposited into recycling bins gets recycled, although, according to information from Mark Walter of Brown County's recycling program, some is also used at landfill sites for roadbeds. The difficulties with recycling glass are that it is heavy, it breaks, buyers require glass to be sorted by color, it is abrasive, and causes excessive wear on processing equipment.

In summary, glass offers food quality benefits that make it a first choice. Aluminum can also be sustainable. Plastics have been, and remain, largely a single-use container. Real efforts are being made to bring plastic into the recycling mainstream, but for now, ***it is best to minimize your use of plastic food containers.***

Why We Should Have a Bottle Bill

By Charlie Frisk

When I was a young man growing up in Iowa, I was living in one of the ten states that had bottle bills. Bottle bills require that customers pay a deposit on bottled beverages such as carbonated soda and alcoholic beverages and then receive the deposit back upon returning the cans or bottles. The deposits vary from 5 to 10 cents per can or bottle depending upon the state.

California, Connecticut, Hawaii, Iowa, Maine, Oregon, Massachusetts, Michigan, New York, and Vermont all have bottle bills. All these states passed their bottle bills in the 1970s and early 80s. It was assumed that other states would soon follow, but industry dug in its heels and ramped up the lobbying funds, so no new states have passed bottle bills in almost four decades.

As a youngster, I remember most soda being sold in reusable bottles, which is not the same as a recyclable bottle. These were bottles that were cleaned and refilled, a much more environmentally friendly way to deal with bottles than recycling them. By the time I entered high school, soda and other drinks were also available in recyclable aluminum cans.

In states that have bottle bills, bottle bill legislation has been very popular with the majority of voters. Two thirds of Iowans favor expanding their bottle bill beyond just alcoholic beverages and carbonated soft drinks, to include bottled juice and water.

The support for expansion crosses party lines; 73% of Democrats and 58% of Republicans want to see a stronger bottle bill. With that kind of public support, a stronger bottle bill would seem to be a slam dunk, but this is where the issue of money comes in.

"The grocery industry has so much money and so much lobbying power, it is almost impossible to do anything," said Senator Dick Dearden, a Des Moines Democrat who chairs the Natural Resources Committee. "I've tried in the past," Dearden said. "We should absolutely expand the bill. It's litter control. We're recycling that product."

Opponents of bottle bills include beverage container manufacturers, soft drink bottlers, beer, wine and liquor distributors, and retail groceries. Bottle bill opponents outspend supporters by an average of 30 to 1 in states where the bills have come up. This translates into millions spent in opposition, as compared to tens of thousands spent by supporters of bottle bills. Is it any wonder that no new states have been added to the list in over three decades? A national bottle bill was proposed in 1992, but it never made it out of committee because opponents outspent supporters 75 to 1 at the committee level and successfully "bottled up" the bill.

There are good reasons why bottle bills are popular in the states that have them. In those states container litter was reduced from 69-84% and total litter 34-64%. Bottle bills reduce the demands associated with continually mining new resources to produce the containers, and reduce the load going into landfills. Studies have shown that total greenhouse gas production is substantially less for recycling than for producing new containers from raw materials.

One of our most pervasive forms of litter today is plastic water bottles. When hiking at Baird Creek or canoeing one of my favorite rivers, I pick up the cans or bottles I see. Twenty years ago, the most common kinds of litter were Bud Light and Mountain Dew cans. Today they are outnumbered 20 to 1 by plastic water bottles.

About 15 years ago, my wife and I vacationed in Guatemala and took a ferry to several of the small Mayan villages on Lake Atitlan. Lake Atitlan is renowned as one of the most beautiful lakes in the world and is Guatemala's most important national and international tourist attraction. While taking the ferry across the lake I would continually hear this rattling sound coming from the bottom of the boat. When I went to the side of the boat to figure out what the noise was, I realized it was the sound of the ferry passing over thousands of plastic bottles.

A local forester told me that just ten years prior there were no plastic bottles used in Guatemala. Local businesses had all relied on reusable glass bottles. They were a recent development that had come with the increase in U.S. and European tourists. Most of the plastic bottles were not being dumped directly into the lake. They had been dumped on the surrounding land, and gravity was carrying them into Guatemala's largest lake or into the ocean.

If a federal bottle bill were to pass, there would be winners and losers. Reusable glass bottles like we used 40 years ago would probably make a comeback. They're still popular in many parts of the world. Aluminum would likely replace much of the plastic and glass being used simply because it is much more economical to recycle.

Plastic bottles would be the big loser. Only about 5% of plastic bottles are recycled in the U.S. Many of them never make it into the recycling bins, but even many of those that do, are not recycled because plastic is not economically feasible to recycle.

What can you do to reduce plastic bottle waste?

- Push our politicians to pass a state and/or federal bottle bill.
- When you have a choice between glass, plastic or aluminum containers, buy aluminum. Unlike glass or plastic, used aluminum always has a market value, and if you get it into a recycling container, it will be recycled.
- Rather than buying single-use plastic water bottles, purchase a quality reusable water bottle. Yeti water bottles, as well as some of their cheaper imitators, will keep ice frozen all day long on the hottest summer days.
- When possible, buy liquids in reusable containers. I buy my milk in reusable glass bottles from Lamers Dairy. Not only do I think it tastes better, but it makes me feel downright virtuous to know I am not contributing to the world's plastic overload every time I buy my milk.

The Last Plastic Straw?

By Caitlin Cravillion, CWAC Intern

Plastic Straw bans have become very popular around the globe in the past few years. However, many question the reason why plastic straws have become a focus instead of other plastic products that are responsible for a larger percent of our plastic pollution. This article will explain why governments, businesses, and organizations are pushing the ban on plastic straws, why some stakeholders have taken an aggressive approach, and why others have had to find alternative approaches to cutting back on straw usage.

According to https://reason.com, "At most, straws account for about 2,000 tons of the 9 million tons of plastic that are estimated to enter the ocean each year, or only about 0.02% of all plastic waste."

So why concentrate our attention on plastic straws? Shouldn't there be a greater focus on plastics that contribute to the plastic problem more significantly? Depending on who addresses the issue, the reasons why plastic straws are targeted have been answered in various ways. Some explanations include the fact that straws are made of a relatively thin material which breaks down into smaller plastic particles, known as microplastics, more quickly than other plastics. Another rationale is that straws are not easily recyclable in most facilities, leading them to be discarded in landfills and ultimately into our waters. Additionally, some businesses have even found cutting out straws to be profitable.

Straws are a single-use plastic, and many people use them. According to EcoCycle, roughly 500 million disposable straws are used by Americans daily. Straws were ranked the seventh most common piece of trash collected in 2017 on global beaches.

The Global Wildlife Conservation explains that the straw is a "gateway plastic" and a conversation starter to the larger, more serious plastic pollution conversation.

Some psychologists explain the focus on straws by explaining the "spillover" theory, or the idea that engaging in a single behavior can psychologically motivate one to engage in other similar behaviors. For most, straws are an item of convenience, so refusing a straw is the easiest and simplest way for everyone to help address the plastic pollution problem.

Some states have taken a more aggressive approach to cutting out straws. For example, California just approved a ban on straws at sit-down restaurants starting in January of 2019. Hawaii and New York have also been proactive about attempting to ban straws, but have been unsuccessful in 2018.

Other bans on straws come from a citywide approach: Seattle, San Francisco, and Vancouver have already successfully banned straws. Other cities such as New York City, Malibu, San Luis Obispo, Miami Beach, and Fort Myers have all begun the legislative process to ban straws in the near future.

Straw bans have also come from major corporations like Starbucks, Bacardi Rum, Bon Appétit Management Company, Marriott Hotels, Alaska Airlines, and American Airlines. These corporations have publicly announced that they will phase out plastic straws by 2020. Many other businesses and corporations have shifted towards phasing out straws.

So what type of push are we seeing in the Great Lakes region and even more specifically in Wisconsin? Restaurants in the Great Lakes region, including cities such as Minneapolis, Milwaukee, and Detroit have all engaged in activities to reduce plastic straw usage.

As for Wisconsin, action may need to come from citizens themselves. In 2015, Governor Scott Walker signed a law prohibiting plastic container bans in the state making it difficult for local governments to ban some plastic packaging. Will straws be considered part of this prohibition?

If so, action needs to be taken in other ways. Through campus initiatives, local food retailers, or by simply requesting straw-free beverages. Remember, the straw is an unnecessary, single-use plastic prop that is contributing to the plastic pollution problem. Refusing plastic straws is an easy step to cut out unnecessary plastic usage and leads to conversations about our plastic dependency problem.

Paper or Plastic Bag. How about Neither.

By Charlie Frisk

When buying groceries, we frequently hear the question, "Do you want paper or plastic." Your answer should always be, "Neither, I brought my own."

We've had the Stone Age, the Bronze Age, the Iron Age, and we are now experiencing the Plastic Age. **18 billion pounds of plastic ends up in our oceans each year**. Although production of plastics did not really take off until the 1950s, **there is now 9.2 billion tons of plastic waste just out there in the environment**. If plastic had been invented when the Pilgrims sailed from Plymouth, England to North America, and the Mayflower had been stocked with bottled water and plastic-wrapped snacks, their plastic trash would still be around, four centuries later.

One of the most visible forms of plastic waste is the plastic bag. It is almost impossible to drive more than a few blocks without seeing plastic bags in the trees, along streams, or just blowing around on the ground. These bags suffocate wildlife, are accidently ingested by marine life such as sea turtles, and are one of the main sources of microplastics, which are estimated to kill millions of marine animals every year.

About 15 years ago, I vacationed in Guatemala. I always took an early morning jog in those days. I would see dozens of people who had been hired to pick up trash in the cities. What became of that trash? As far as I can determine, the trucks were simply driven into the country and the trash dumped into the most convenient ravine. Every stream bank in Guatemala was completely lined with plastic bags.

I talked to a Guatemalan Forestry Dept. employee and he told me that if I had been there a mere ten years earlier I would have seen no plastic bags. The locals bought and transported their goods in woven baskets, and tourists would generally buy a native made basket to transport items in as well. It wasn't until it was considered too inconvenient for American and European tourists that the "miracle of plastic" had come to Guatemala.

I suspect that eventually Guatemala will develop landfills, but at that time, the transition from a non-throwaway society to a throwaway society had occurred so rapidly that the country had not developed the mechanisms to deal with it.

The working life of a plastic bag is 15 minutes and in the U.S. less than 10% of them are recycled. It wouldn't be so bad if the non-recycled ones all made it to landfills, but a short drive anywhere in the U.S. will show you that many of them don't make it to the landfills. It doesn't have to be this way. I would argue that the little extra convenience of plastic bags is not worth the cost they are having on our environment.

The number of people bringing their own shopping bags has dramatically increased, but personal initiative is not going to solve the problem. We need the heavy hand of government regulation.

Hawaii, California, and North Carolina have already banned single-use plastic bags, along with hundreds of U.S. cities. The countries of Australia, India, China, Italy, and France have bans, and the United Kingdom is requiring that stores charge for every plastic bag they give out. If you go into a grocery store in any of the Scandinavian countries without your own bags or boxes you will end up transporting all of your groceries loose in your hands because they do not provide plastic or paper bags. To the best of my knowledge, citizens of these countries, states and cities are still experiencing an acceptable quality of life without the convenience of single use plastics bags.

Unfortunately, Wisconsin has gone in the opposite direction. On March 30, 2016, Governor Scott Walker signed legislation protecting plastic bags from community bans. AB 730 prohibits local governments from regulating the commercial use of plastic bags or "auxiliary containers" such as cups, bottles or other packaging. This has to be one of the most blatantly anti-environmental pieces of legislation ever passed, and by a political party that is continually trumpeting their supposed support of "local" control.

My family has been using our own canvas bags for grocery shopping for over a decade, once you develop the habit it will become second nature. We also bring little

mesh bags to put individual fruits and vegetables in. Don't wait for the government to ban the bags, take it upon yourself to do the right thing.

This issue is about plastics, but I want to also mention paper bags. Paper bags, a common plastic bag alternative, are made from wood pulp. I recently read an article that stated that every mature tree in the entire Canadian province of Manitoba that was not on protected land was likely to be cut down in the next 15 years, primarily for paper production. I think we all would agree that we prefer our trees standing. ***Neither paper nor plastic are good choices. Make yours, "I brought my own."***

Markets for Recycling Plastics vs. Glass

By Dave Verhagen

Brown, Outagamie, and Winnebago Counties jointly operate the Tri-County Material Recovery Facility in Appleton where all the material collected from our recycling bins winds up. It is one of the largest publicly owned recycling facilities in the country. Overall, more than 90% of what is collected curbside for recycling gets recycled, according to Mark Walter of the Brown County Port & Resource Recovery office. About 8% of collected material winds up in our landfills, as compared to an average of 15-20% nationally. For videos about how to recycle go their website at https://www.recyclemoretricounty.org/pictures-videos/

Aluminum cans were being recycled at a rate of 67% in the U.S. in 2012. Nationally, there is more recycled aluminum on the market than can be sold. Due to the abundant supply, buyers have become picky about the quality of the collected material they will accept. While a lot of aluminum cans are recycled locally, they only represent about 2% of local recyclables by weight.

About 25% of the glass collected in Brown County gets sold for recycling. The rest gets used for building roads at the landfill sites or gets landfilled. Glass bottles typically contained 33.4% recycled content. Glass tends to have a lot of small pieces of paper and plastic mixed with it which contaminates the product and causes it to get rejected by buyers. It is also hard and abrasive; good for building roads, but hard on the machinery processing it. In addition, glass's heavy weight makes transportation costly.

But plastics are the story of our times. "Plastic" is a catchall term for a wide variety of products most often made from oil. Many forms of plastics cannot be recycled with our current technologies. 25% of plastics are being recycled in the United States. Even when we are able to recycle plastic, its integrity degrades each time it is processed. Plastic bottles are most often recycled into fabrics and insulation for clothing and bedding. Some plastics, like the grocery bags you return to the stores where you shop, are made into building materials for lightweight

Courtesy of Tri-County Recycling

applications, such as park benches and picnic tables.

Despite the closing of the Chinese market for buying recovered plastics, Brown County's business development manager Mark Walter indicated that the markets for plastics containers PETE#1, HDPE#2, LDPE#4, and PP#5 remain strong. The implication is that we can successfully collect and repurpose many more bottles than we are doing currently. Plastic film is a problem, as are non-container and rigid plastics that used to go to China. There is no place to send them.

A tipping point may be approaching when it comes to our use of plastics. Awareness of plastic waste in our food supply, our water, and most everywhere is growing due to the body of news on the issue. Health issues from the component chemicals in many plastics are now better known. Foundations and activists are finally getting traction on the issue of plastics.

Some of the largest purveyors of plastic packaging on earth, including Coca-Cola, Nestlé, Unilever, and H&M have pledged to establish a "circular" economy for plastics by 2025. A "circular economy" would create value for plastics from the time they are created until the time they get fully recycled. They are joined by over 250 organizations, including Walmart, PepsiCo, SC Johnson, and others to eliminate unnecessary and problem plastics by 2025 and replace them with plastics that are either reusable, recyclable, or compostable. This is all part of a project spearheaded by the Ellen MacArthur Foundation: https://newplasticseconomy.org/projects/global-commitment

While the U.S. is the single largest producer of plastic wastes, the majority of plastics manufactured here are shipped overseas, where disposal is a bigger problem than here and recycling is almost non-existent. A start-up addressing this situation is the Plastic Bank, a company founded in 2013 that pays people to collect discarded plastic bottles and containers.

They established stores in Haiti and the Philippines to

start, and have plans to expand to India and throughout the developing world. Plastic collectors are paid by the pound, in cash, or in store credit on a blockchain account managed by IBM. The store sells efficient stoves and fuel, cell phones and cell phone minutes, solar cells, lights and batteries, as well as an inventory of necessities for everyday living. The Plastic Bank has commitments to buy the collected plastics from some of the largest companies in Europe. They call the plastic they collect and resell Social Plastic. You can watch a Ted Talk online by searching *"Ted Talk: Social Plastic"* on Google or YouTube.

In Mexico, a startup called Cronology collects empty PET and PETE bottles and uses them to make mineral paper, or peta paper. It is made from recycled PET, calcium carbonate, and stone. It does not use any of the chlorine or chemical washes used in regular paper making. The paper they make is strong, waterproof, and is photodegradable. It meets the quality standards for use in printing books, stationery, and boxes. ("Entrepreneurs succeed in transforming used PET plastic bottles into mineral paper." (ScienceDaily, 15 January 2015) or https://phys.org/news/2015-01-entrepreneurs-pet-mineral-paper.html

Whether glass, plastic, or aluminum: they are recycled at higher rates in regions where deposits are charged on the container, and/or a robust market exists for the return of these items. Recycling is higher still when marketing know-how is applied to a public campaign encouraging recycling. Norway has uniform design standards for waste, paper, and bottle recycling receptacles used in all public spaces. The result is one of the highest rates of recycling in the world. By "branding" the recycling containers nationwide, the collection process is more clearly understood by Norwegians and their programs more successful.

We can be optimistic about new markets emerging for recycled materials, and can even expect better life cycle planning for our consumer goods. But clearly, making a more sustainable planet for our children will only happen when we demand that it happen with our dollars when shopping every day.

Without planned giving donations or legacies, our organization would not be able to do the work of protecting human health and the environment at its current level. Please consider supporting our endowment fund at the Greater Green Bay Community Foundation with a gift in your will or bequest.

Contact us for a Planned Giving Brochure

SOME WAYS TO REDUCE THE USE OF PLASTIC

- Say **NO** to plastic straws
- Bring a reusable shopping bag with you
- Get rid of the plastic water bottle, refill your own metal or glass bottle
- Pack your lunch in glass containers instead of plastic, or buy ceramic from your local potter
- Avoid snacks/food with excess packaging
- Stop using plastic cutlery
- Choose cardboard over plastic when you can
- Swap out your plastic toothbrush for one with a bamboo handle
- Choose products in glass bottles and tell the company you won't buy it in plastic
- Choose metal over plastic razors
- Choose wire hangers over plastic ones and don't buy a plastic hamper
- If it's plastic, think twice, such as the plastic wrap on cut flowers
- Stop ordering take-out. But if you can't, ask for recyclable containers or bring your own.
- Don't buy products in plastic containers or wrap. For instance, purchase soap in paper wrap.
- Choose cloth diapers over plastic disposable diapers.

https://4ocean.com/blogs/blog/15-ways-to-reduce-plastic-use

Northeast Wisconsin Cycling Guide:

file:///C:/Users/Owner/Downloads/FINAL%202018%20Guide_single_page%20(1).pdf

PBS News Hour videos on the plastic problem:

https://www.pbs.org/newshour/series/the-plastic-problem

A Review of Efforts by Northeast Wisconsin Counties to Promote Recycling at Events

By Dean Hoegger and chart compiled by Danielle Radtke

State laws require recycling at all events and gatherings outside of the home including fairs, festivals, concerts, sporting competitions, conventions, reunions, and weddings. While there is greater motivation for organizers to collect aluminum cans for cash, plastic bottles provide less motivation. No doubt you have seen such containers being placed in trash containers. Did you wonder if the event organizers had provided sufficient receptacles for all recyclables and provided sufficient direction to attendees?

The laws require that there must be ways to collect clean cardboard, aluminum cans, glass and plastic bottles at events. However, it is not unusual to find recyclables mixed in with non-recyclables, and it is doubtful that post-event sorting would be likely. What is lacking at events when this occurs? Is there a lack of education by state, county, or local officials to inform event hosts?

The owners of commercial, industrial, retail, and governmental facilities must inform the users of recycling requirements for events. In the case of public facilities, such as parks or street events, the applicable government agency "must provide for recycling collection either by doing it themselves or requiring the organizers of the event to recycle," and preferably in the use agreement.

Counties are a key governmental agency for educating the public about event recycling. Yet a review of county websites found that while some provided excellent information, many counties provide little or no information on their website. A follow-up contact with these counties was conducted to learn if other forms of education were provided.

The following chart shows the status of your county's website. If you find it less than excellent, contact the agency or your county representative and ask for a website upgrade.

Summary of Northeast Wisconsin Counties to Promote Recycling

Key for website rating:

Excellent = specific ordinance on website/has link to special event recycling/may provide containers

Nominal = mentions special event recycling on website

Absent = no information on website

(Note: Counties with an absent rating were contacted to provide information not on their website.)

COUNTY	WEBSITE INFO	FORMS OF EDUCATION	CONTACT	WEBSITE
Brown	Excellent	For a list of ways to continue recycling away from home, visit: http://dnr.wi.gov/topic/Recycling/AwayFromHome.html http://www.rethinkrecycling.com/residents/recycle/recycling-while-away-home or http://americarecyclesday.org/public-space-recycling-resources/	Mark Walter *Business Development Manager* **920-492-4950**	http://www.browncountyrecycling.org/event-recycling
Calumet	Absent	The county hopes to include some educational information on best-practices for residential and event recycling in the future.	Chris Meuer *Code Administrator* **920-849-1493 ext. 2404** Chris.Meuer@calumetcounty.org	www.calumetrecycles.com
Door	Nominal	The Highway Department serves as the responsible unit to ensure that the County is operating effective recycling management programs.	John Kolodziej **920-746-2500** kolodzie@co.door.wi.us	http://map.co.door.wi.us/admin/County-Code-Book/CHAPTER%2024%20Recycling%20Ordinance.pdf http://www.co.door.wi.gov/
Florence	Absent	Florence County hosts very few public events. The County does offer Clear Stream Recycling containers for such events.	Trish Kelly *Assistant Zoning Admin. & Recycling Coordinator* **715-528-3431** tkelly@co.florence.wi.us	http://www.florencecountywi.com/departments/?department=b2d111e3ecff&subdepartment=d4d340fd11ee
Fond du lac	Absent		Katie Gunzy *Administrative Assist. and Info., Planning & Dev* **920-929-3135**	http://www.fdlco.wi.gov/
Forest	Excellent	Has link to county ordinance regarding recycling at large outdoor events.	Jean Fannin *Zoning-Land Use* **715-478-3893** fczone@co.forest.wi.us	file:///C:\Users\Robert\Downloads\Forest%20County%20Recycling%20Ordinance.doc

COUNTY	WEBSITE INFO	FORMS OF EDUCATION	CONTACT	WEBSITE
Kewaunee	Absent		Ross Loining loining.ross@ kewauneeco.org	http://www.kewauneeco.org/
Langlade	Absent	Event users are in charge of what happens at fairground events. The county sets barrels out for them, both types of dumpsters onsite recycling and garbage.	Pam Jankowski *Maintenance Dept. & Fairgrounds Event Coordinator* **715-627-6307** pjankowski@ co.langlade.wi.us.	http://www.co.langlade.wi.us/
Manitowoc	Absent	Municipalities within Manitowoc County have their own ordinances dealing with recycling. Most are written to address households and businesses but do not mention special events. https://www.codepublishing.com/WI/Manitowoc/ http://www.two-rivers.org/municipal-code.php	Jon Reisenbuechler *Operations Manager Manitowoc County Recycling Center* **920-683-5031** jonreisenbuechler@ co.manitowoc.wi.us	http://www.co.manitowoc.wi.us/departments/recycling-center/recycling/ http://www.co.manitowoc.wi.us/recyclingcenter
Marinette	Absent		Greg Cleereman *Land Information Director and Conservationist* **715-732-7783** gcleereman@ marinettecounty.com	https://www.marinette.wi.us/
Menominee	Absent		April Arrowood *Department Assistant* **715-799-3001 ext. 2**	http://www.co.menominee.wi.us/departments/?department=1101cdbdb756&subdepartment=76cd3439a7ce
Oconto	Nominal	Oconto County no longer runs a county-wide recycling program. Some municipalities have decided to be the responsible unit of government for the recycling to their citizens.	Paul Reed *Recycling Supervisor* **920-834-6876**	https://www.co.oconto.wi.us/departments/?department=a67c24bc2735&subdepartment=d9ebc528d086
Outagamie	Excellent	State and local laws require recycling at home and away from home. All events and gatherings must provide ways to collect recyclable cardboard, aluminum cans and glass and plastic bottles.	Don Krause **920-687-9285** donkrausewi@gmail.com	http://www.recyclemoreoutagamie.org/residential-recycling/special-event-bins/
Shawano	Absent	County-wide has a recycling ordinance that mainly addresses recycling for residential and business properties.	Kari Hopfensperger *County Planner* **715-526-4970** Kari.Hopfensperger@ co.shawano.wi.us	http://www.co.shawano.wi.us/
Sheboygan	Absent		Aaron Brault *Planning, Resources, Agriculture & Extension Committee* **Planning: 920-459-3060** plancon@ sheboygancounty.com	https://www.sheboygancounty.com/
Waupaca	Excellent	Waupaca County offers special event recycling free of charge to all Waupaca County residents and businesses by providing clear stream bins. A refundable deposit is paid to use the bins and participants are responsible to bring in their recyclables to a Waupaca County Recycling Drop Off Center.	Waupaca County Solid Waste & Recycling Dept. **715-258-6240** parks@co.waupaca.wi.us	http://www.co.waupaca.wi.us/departments/solid_waste_and_recycling/index.php
Winnebago	Absent	Recycling ordinances were developed at the municipal level (City/Town/Village) rather than the county level. Each community/municipality assumed the role as the WDNR "Responsible Unit" and developed recycling ordinances and systems to comply with state law and fit the need of each community.	Kathy Hutter *Recycling Program Manager Winnebago County Solid Waste* KHutter@co.winnebago.wi.us	SolidWaste@co.winnebago.wi.us

Photo courtesy of Florida Sea Grant Program

Plastic Pollution Pandemic: Microplastics . . . No Small Issue

Danielle Radtke, CWAC Intern

You are probably drinking microplastics right now and you don't even know it. Microplastics have become a growing concern recently, especially for those of the Great Lakes region. Microplastics have been discovered in all five Great Lakes, a source that provides drinking water to approximately 40 million people. A University of Minnesota study showed there to be microplastics in 12 brands of beer filtered from the Great Lakes. Samples taken from around the world show that the average person ingests over 5,800 particles of synthetic debris from water, beer, and sea salt annually; 88% of that synthetic debris coming from tap water.[1] The Alliance for the Great Lakes estimated that over 22 pounds of plastic is found in the Great Lakes every year.[3]

What are microplastics?

Microplastics are tiny plastic pieces smaller than 5 millimeters. Plastic material is not biodegradable and tends to break into smaller fragments over time—eventually becoming invisible to the naked eye, and thereby termed microplastics. The most common types of microplastics are fragments, fibers, microbeads, pellets, and foam.

Where do microplastics come from?

Microplastics come from a variety of sources. With society being so heavily reliant on plastic, microplastics are found everywhere. A substantial quantity of microplastics come from the disposal process of plastic products. Approximately 75% of the microplastics found in the oceans are a result of larger plastic items breaking apart, especially from plastic bags and bottles.[2] After the *Microbead-Free Waters Act of 2015*, about 16% of microplastics came from tiny pieces of manufactured polyethylene plastic in exfoliating facial scrubs, toothpastes, and other health and beauty products. Another source comes from small fibers that break off of synthetic polyester, nylon, and fleece clothing items during the washing process and everyday wear-and-tear and make their way into our water systems. These microscopic plastic particles pass through water filtration systems and end up in the Great Lakes and the ocean—and eventually into you.

What are microplastics doing to our health?

As an emerging field of study, there is not a significant amount of information on microplastics and the extent of risks microplastics pose to human and aquatic health are still unknown. Plastic can serve as a vector for toxic substances and contaminants, which they carry into our waters, and ultimately, into our bodies.

Over time, plastics degrade and release toxic chemicals including bisphenol A (BPA), phthalates, polychlorinated biphenyl (PCB), tetrabromobisphenol A (TBBPA), and polybrominated diphenyl ether (PBDE) into their environment.[1] Microplastics bind to and transport these toxic substances, and are subsequently being ingested by people. All of these chemicals are known to disrupt endocrine functions and cause harmful reproductive and developmental effects. BPAs and PCBs are both carcinogenic substances to living organisms.

What are they doing to our waters?

Microplastics pose a threat to our lakes, oceans, and aquatic life. Microplastics are unknowingly ingested or absorbed by aquatic species and bioaccumulate in their tissues. These bioavailable plastic particles in the waters are transferred up the food web, affecting everything from plankton to whales. Fish have been found to have the highest concentrations of microplastics in the food web, particularly shellfish. Studies have found microplastics in the livers of some fish, suggesting that microplastics can move from the digestive system to other body organs and tissues. People consume the microplastic contaminated fish, thereby ingesting microplastics themselves. Scientists have found microplastics in 114 aquatic species, and an estimate of more than half of those aquatic species end up on our dinner plates.[4]

Despite wastewater treatment plants' high rates of removal of microplastics, the average wastewater treatment plant still releases four million particles on a daily basis, with some plants releasing up to 65 million plastic particles into our drinking water daily.[2]

The tendency of plastic to aid in the transport of invasive species gives rise to the potential for great harm to occur in the Great Lakes region.

What can you do?

We have the power to change the amount of plastic that is polluting our Great Lakes. Through lifestyle choices, people can have a positive impact on plastic pollution. Simply put, we must drastically reduce the amount of plastic being released into the environment. Refuse one-time use plastic straws, bags, and bottles, choose reusable glass or metal refillable containers, avoid purchasing

products with excess packaging, choose wool fabric over synthetic, know your local recycling rules, get involved in a cleanup project of the Great Lakes, and spread the word!

Big Progress:

The *Microbead-Free Waters Act of 2015* banned the manufacture of microbeads after July 2017 and banned the sale of personal care products containing microbeads after July 2018, but these products only make up a small percentage of the anthropogenic contribution to plastic pollution.

Sources:

[1] Kosuth M, Mason SA, Wattenberg EV (2018) Anthropogenic contamination of tap water, beer, and sea salt. PLoS ONE 13(4): e0194970. https://doi.org/10.1371/journal.pone.0194970

[2] https://www.iisd.org/blog/microplastics-what-are-they-and-what-can-we-do-about-them

[3] https://greatlakes.org/2018/06/7-ways-you-can-keep-plastic-out-of-the-great-lakes/

[4] https://www.nationalgeographic.com/magazine/2018/06/plastic-planet-health-pollution-waste-microplastics/

Health Impacts of Chemical Exposures from Plastics

By Lora Jorgensen

We live in a "disposable world" filled with items designed for our convenience. But what is the cost of convenience to our environment and to our health?

Bisphenol A, also known as BPA, is used to make billions of plastic beverage containers, dinnerware, water bottles, and children's toys. BPA epoxy resins are used in the protective linings of food cans and in dental sealants.

A National Health and Nutrition Examination Survey produced by the US Centers for Disease Control and Prevention concluded that BPA was found in 93% of urine samples taken from people above the age of six. General exposure to BPA at low levels comes from eating food or drinking water stored in containers that have BPA.

BPA is dangerous to humans because it is considered an endocrine disruptor, meaning it can either decrease or increase endocrine activity in humans. BPA gets into a woman's body and tricks the reproductive system into thinking it is a hormone. It has been shown to compromise the quality of the eggs a woman produces, as well as alter the DNA of the fetus, which can lead to birth defects. BPA is also commonly found in the breast milk of most women in the developed world, thus exposing infants to these harmful chemical compounds.

Exposure to BPA has a negative effect on developmental processes, possible effects on the brain, behavior, and prostate gland in fetuses, infants and children. Small children are also at risk of exposure by hand-to-mouth and direct oral contact with materials containing BPA from plastic food containers and plastic toys.

BPA has been linked to a host of medical issues in adults as well. Research strongly suggests that at certain exposure levels, BPA may cause breast and ovarian cancer in adult females, and elevated urinary BPA levels are associated with prostate cancer in male adults. A study by the Duke University Medical Center found the presence of BPA prevents the removal of chloride from the central nervous system, and also disrupts the way the brain regulates genes. Excess chloride in the brain is known to be one of the key drivers of dementia, Alzheimer's disease, and other cognitive disorders.

Phthalates, often called plasticizers, are a group of chemicals used to make plastics more flexible and harder to break. When food is wrapped in plastic containing BPA, phthalates may leach into the food. Any migration is likely to be greater when in contact with fatty foods such as meats and cheeses than with other foods.

Phthalates are also commonly found in thousands of personal-care products, such as soaps, shampoos, lotions, makeup, hair sprays, and nail polishes, and are easily absorbed through the skin. They have been linked with a variety of adverse outcomes, including weight gain and insulin resistance, decreased levels of sex hormones, and other consequences for the human reproductive system both for females and males.

How to reduce or prevent chemical exposure from plastics:

Use BPA-free products

The label "BPA-free" on a container or bottle doesn't mean a product is free from other harmful chemical compounds that are slightly different but have a different name. In general, it is not recommended to heat food in

plastic containers with the codes 3, 6, and 7. The USDA Food Safety and Inspection Service advises Americans not to reuse margarine tubs, take-out containers, whipped topping bowls, and other one-time use containers, which are more likely to melt and cause chemicals to leach into food.

The safety of alternative plasticizers is also called into question by recent studies including one published in *Toxicological Sciences*, Volume 158, Issue 2 and summarized in the abstract at https://academic.oup.com/toxsci/article/158/2/431/3849675:

In conclusion, BPA alternatives are not necessarily less estrogenic than BPA in human breast cancer cells. BPAF, BPB, and BPZ were more estrogenic than BPA. These findings point to the importance of better understanding the risk of adverse effects from exposure to BPA alternatives, including hormone-dependent breast cancer.

Cut back on cans

Reduce your use of canned foods since most cans are lined with BPA-containing resin.

Avoid heating plastics

The National Institute of Environmental Health Sciences, part of the National Institutes of Health, advises against microwaving polycarbonate plastics or putting them in the dishwasher because the plastic may break down over time and allow BPA to leach into foods.

Use alternatives to plastic

Use glass, porcelain, or stainless steel containers for hot foods and liquids, instead of plastic containers. Storing and reheating food in glass containers highly reduces or eliminates exposure to these harmful chemicals.

References:

https://www.earthday.org/2018/03/14/fact-sheet-the-plastic-threat-to-human-health/

https://shopkablo.com/blogs/the-reformist/dangerous-side-effects-of-bpa-plastic

https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/bpa

Our 2019 Membership Drive Begins with this Issue
Please renew!!

The Action in Clean Water Action Council

By Dean Hoegger

Our membership drive for 2019 begins with this newsletter issue. Please renew your membership today!

Thank you to the many members who renewed their membership for 2018. If you forgot to do so, (check your mailed newsletter address label or the e-mail with the digital newsletter for your last renewal year) you can mail your membership donation or go online to **http://www.cleanwateractioncouncil.org/membership/**

Read below about actions we have taken in the last three months.

Be sure to contact us if an environmental issue arises in your community. CWAC is here to support citizen action.

LEGAL ACTIONS

As a citizen organization, an important function of CWAC is to take legal actions on behalf of our members to protect human health and the environment. Because individual members may be reluctant or unfamiliar with how to file a legal action, the CWAC board of directors believes that taking legal action on behalf of our members is an important part of our mission. Here are some current legal actions and our efforts to improve environmental laws.

CWAC supports citizen opposition to a manure pit construction in Oconto County.

A year ago this May, CWAC was asked to support citizen efforts to stop construction of a manure pit near some rural homes. At that time, the factory farm B&D Dairy asked for a variance for the pit setback from a roadway. CWAC researched the requirements for a variance and found B&D did not meet the requirements. We wrote an appeal to the pit permit granted by the county which was then overturned by the county board.

This summer, B&D obtained a new permit and began construction the day after the permit was granted. Our review of the permit found it to be deficient with both state and county requirements. Again, CWAC wrote an appeal, however, this appeal did not go before the county board but rather a review board made up of some of the same people who granted the permit. The appeal was denied.

Several neighbors hired an attorney who was coached by CWAC to bring the deficiencies we found before the Oconto County Circuit Court on September 24. However, rather then doing so, and against our warnings, the attorney filed a nuisance complaint instead.

As we had warned, B&D Dairy did file a motion for attorney's fees and had a team of five lawyers. Unlike most civil suits which have a cap on recovery of fees, the *Right to Farm Law* allows for recovery of all reasonable fees with no cap.

The problem with this law is that it protects all farming operations including factory farms from nuisance suits, placing them beyond the normal legal recourse citizens

have in civil court due to the risk of paying all of the factory farm's litigation expenses. It is for this reason that Wisconsin's environmental organizations have not risked filing nuisance suits—even when there was a clear case of nuisance.

Imagine if this law applied to all types of factories. **It is time to place industrial farming operations in a new category and stop giving them special protections!**

A factory farm manure lagoon.

CWAC's Efforts to intervene in DBA vs DNR Settlement

Midwest Environmental Advocates previously filed a declaratory judgement action and petition for judicial review to challenge the DNR settlement with the Dairy Business Association on behalf of CWAC and several other petitioners. This settlement gave up DNR's authority over requiring manure runoff controls in vegetated calf hutch production areas.

This case is still active and we expect the final hearing to be held on Friday, January 11 at 10:00 AM at the Milwaukee County Courthouse. We believe Judge Pocan will issue an oral ruling and final decision at the hearing.

CWAC works to pass NR151 revisions.

Although not a typical legal action, influencing the rule changes will have legal implications in the form of administrative rules. While serving on the DNR's Technical Advisory Committee, CWAC helped citizens demand stricter manure spreading rules in karst regions and the NR151 revisions were approved. Nearly all of CWAC's recommendations are in the new rules with the exception of requiring three feet of soil over karst bedrock.

We have continued to monitor the implementation of the new rules, and we ask that residents of Brown and Calumet Counties urge elected officials to have their county adopt the rules as a county ordinance.

Update on Safe Drinking Water Act Petition for Emergency Action, filed with the EPA October, 2014.

While the revisions to NR151 are a direct result of this Petition, we feel more is needed to protect our groundwater. On September 19, petitioners participated in a meeting with EPA representatives to push for their continued involvement with the drinking water crisis in Kewaunee County. Most petitioners felt the EPA was unwilling to commit additional resources to well contamination problems. The petition and supporting documents can be found at: www.cleanwisconsin.org/kewaunee-safe-drinking-water

Citizen Petition for Corrective Action for the Clean Water Act, filed October, 2015.

When first filed, our petition noted 75 deficiencies with Wisconsin's administration of the Clean Water Act. The EPA's "Legal Authority Review Status 09-21-2018zz" updated the status of the "75 issues" indicating that 68 of the 75 were resolved. See https://www.epa.gov/wi/npdes-petition-program-withdrawal-wisconsin-0. There may be a need for further litigation to resolve the remaining issues.

CWAC promotes ordinances to ban manure spraying.

CWAC continues to offer presentations to residents and town officials. Thus far, at least 17 northeast Wisconsin towns and cities have passed a ban. If your town has not passed an ordinance, contact us to help get a ban and protect your family from this health threat.

For more information on this concern, go to our website for Priority Issues: "Ban Manure Spraying" for more information. http://www.cleanwateractioncouncil.org/issues/spray-irrigation/. If your town has not passed a ban, contact us for assistance.

CWAC monitors water pollution permits.

We monitor for new permit notices and hearings and publish those in our *Weekly Update* and at times attend hearings and/or submit comments. At this time, there are no hearings scheduled. Please monitor the *Weekly Update*.

Join the Clean Water Act Enforcement Network.

CWAC is sponsoring this group and providing training on how to monitor for pollution permit compliance. Group members monitor for pollution permit violations online and through onsite observations. Midwest Environmental Advocates is providing technical and legal support for the group. Research work can be completed at home, shared with the group online, and then reviewed during a monthly meeting in person or by telephone. Contact us if you would like to work on this enforcement effort to protect the waters of northeast Wisconsin.

CWAC continued to monitor the PFC Contamination, Citizen Steering Committee in Marinette.

Perfluorinated compounds (PFCs) contamination from the Fire Training Center in Marinette has been found at alarming levels in drainage ways and creeks discharging to Green Bay, as well as in several ponds on residential and commercial properties in the City of Marinette. CWAC participated in a citizen advisory group. The case is now being considered by attorneys familiar with this type of contamination. They are monitoring the response by responsible parties, Tyco Fire Protection and Johnson Controls.

CWAC monitors actions by the state legislature.

Again, not a typical legal action, yet monitoring for harmful bills and supporting those that provide greater protection is necessary to insure that laws are not passed without public participation.

Please watch for information in the e-mailed *Weekly Update* about Conservation Lobby Days and the bus-ride CWAC will likely sponsor from northeast Wisconsin. Not receiving the Update? Send us an e-mail request. It is sent out once a week via BCC e-mail.

CWAC'S EDUCATIONAL EFFORTS IN THE COMMUNITY

Health Forums: Protecting Your Family from Toxins in the Home and Environment.

On January 24, we will co-sponsor a forum on the health hazards from exposure to polycyclic aromatic hydrocarbons (PAHs) found in coal tar asphalt sealants commonly used by commercial sealing companies. *See the poster on page 17* for the details on this forum in Sturgeon Bay. Watch for details on presentations in Manitowoc, Sheboygan, Green Bay, and Appleton in the Weekly Updates in January and February.

Other health forums for winter are being scheduled at this time. We are planning a presentation on environmental links to breast cancer, and a film showing and discussion of the health and environmental risks of land spreading industrial and municipal sludge. In October, Debra Pearson spoke about the latest research on the benefits of consuming meat, dairy, and eggs from grass-grazed animals. Check your *Weekly Update* for upcoming forums.

Contact us if you have suggestions for topics or speakers, and please consider sponsoring a health forum at the $150 level or contact a business who will be a sponsor. The forums focus on protecting our families from toxins in the home and environment.

CWAC receives award.

Dean Hoegger and Charlie Frisk attended the Wisconsin River Alliance fall banquet where CWAC received the Water Heroes Award for the organizations efforts to protect the waters of northeast Wisconsin.

Workshop to protect our waters with managed grazing.

CWAC sponsored this workshop, "Protecting Our Waters, Improving Your Farm's Bottom Line with Managed Grazing" at UW-Green Bay on December 6. More than 35 people attended including farmers, land owners, lenders, and academics.

CWAC completed state water monitoring for Bairds Creek.

CWAC completed water sampling of Baird's Creek as part of the DNR's Water Action Volunteers monitoring total phosphorus concentration and other conditions for 14 tributaries in the Lower Fox Watershed. Interns Catlin Cravillion and Danielle Radtke completed sampling for the year in October.

Presentations and Exhibits

Contact us to schedule a presentation for your group on a variety of environmental issues or exhibit at your event. Presentations include The Hazards of Manure Spraying, Protect the Waters of the Northeast Wisconsin, Barriers to Citizen Participation in Environmental Decision Making, **The Hazards of Burn Barrels**, Communities on the Road to Zero Waste, and more. The presentations can be tailored to your group's age and available time. Also, contact us if you would like us promote or co-sponsor your event or presentation. Below are additional community action efforts.

Since the last newsletter, we gave presentations in Sturgeon Bay for Hope Church, the Rotary Club, and Learning in Retirement and NWTC.

We are also hosting the film *Escarpment* with the filmmaker and geologist Roger Kuhns on February 5 in the Christie Theater at UW-Green Bay from 6:30-9:30 p.m. *See the poster on page17 for more details.*

CWAC serves on Congressman Gallagher's Save the Bay committee for the Lower Fox River watershed

CWAC continues to serve on the committee's education and outreach subcommittee. Dean Hoegger attended the Door/Kewaunee Farm Demo Day for CWAC in October.

Efforts to Stop the Back 40 Mine

We continue to monitor these efforts and lend support when requested. We published the latest developments including "Back Forty mine developers find themselves facing zoning fight with small Michigan township" in the *Weekly Update*.

Outreach through Newspaper and Radio

CWAC Vice President Charlie Frisk frequently has his articles published in "Letters to the Editor" in publications around the state. He is willing to write an article for you. CWAC President Dean Hoegger spoke on WBDK, WDOR, WTAQ, Y-100, and Duke FM about managed grazing in November.

Website Updates

Articles and resources on our website continue to be updated as new information is available and past newsletter issues can be found at www.cleanwateractioncouncil.org

CWAC provides interns with valuable experiences

We provide our interns with valuable experiences and strategies for managing a non-profit organization, invite them to attend area conferences and meetings which gives them networking opportunities in environmental fields, and encourage them to research and write for our newsletter, among many other experiences. Catlin Cravillion and Danielle Radtke served CWAC well as our fall interns. Read their articles in this newsletter.

Get Our Weekly Update by e-mail.

Each Tuesday we e-mail the *CWAC Weekly Update* of actions, alerts, events, and the latest information on topics of concern. Send your postings by Monday evening. If you are a member with an e-mail address and you are not getting the CWAC Weekly Update, check your spam folder before e-mailing us to request to be put on the mailing list. If you are reading this newsletter as a non-member, e-mail us to be placed on the free *Weekly Update* list. E-mails are sent via BCC to protect your privacy.

Not receiving the *Update*? Send us an e-mail request. It is sent out once a week via BCC e-mail.

SAVE THE DATE SATURDAY, APRIL 27 FOR THE CWAC BANQUET!

Please follow us on Facebook.
Click here for our page: Facebook

Citizens Are Most Precious Resource

Editorial by member Lee Luft

It is not an exaggeration to say that Kewaunee County enjoys a very enviable place on the world map! It's true, we are blessed with plentiful rivers, lakes, forestlands, fertile croplands, hills, and valleys. However, it is also true that over time we have taken our privileged place and our valuable water resources for granted. Long-time residents remark about the deterioration of streams where prize trout were common and local beaches once beckoned residents and visitors. Multiple DNR-sponsored studies confirmed more than one-quarter of our private wells were unsafe.

This is not a story about water contamination, but rather this is a good news story brought about by Kewaunee County's most valuable resource—its people!

It was Kewaunee County's people who stepped forward to alert our community to the extent of our water problems. It was our residents who conducted surface water testing in our rivers and paid for the private analysis of those tests. It was our county's citizens who often left their homes in the pre-dawn darkness to drive to Madison to meet with legislators and state officials to plead for help. It was Kewaunee County's residents who publically sought action from our county board, our DNR, our Department of Agriculture, the U.S.D.A., and our U.S. Environmental Protection Agency (EPA). Phone calls and letter writing to local, state, and federal officials became routine for our caring residents. In the end, these years-long commitments of time, money, and effort from a tireless core of citizens proved to be the catalyst that brought about the good news we can share today.

Kewaunee County was once seen throughout Wisconsin as ground zero for the fight against water contamination. We were the example of how precious water resources can be harmed when large volumes of nutrients (manure, fertilizer, etc.) are concentrated on lands with shallow soils and fractured bedrock. Residents of other counties began to see Kewaunee County as a cautionary tale and implored their officials to take action to avoid a similar outcome.

Now Kewaunee County is a model for how a community can come together to address environmental concerns. An overwhelming number of Kewaunee County voters approved a first-in-Wisconsin ordinance banning winter spreading of nutrients over shallow soils. Kewaunee County farms responded positively and began working to improve their operations. When efforts to enlist help from our state agencies stalled, concerned county citizens collaborated with environmental groups and petitioned the EPA to take action.

Responding to the EPA, the DNR worked with our residents, farmers, farm consultants, and other state and local officials to establish workgroups dedicated to rewriting Wisconsin's land spreading regulations which have now become law. In the meantime, county officials and the farm community worked to develop a detailed series of requirements to allow the safe use of manure irrigation resulting in another first-in-the-state manure irrigation ordinance.

Our County Administrator proposed newly adopted manure application reporting requirements with greater accountability. The county board launched a successful resolution seeking new aquatic life testing on our East Twin River. The Kewaunee and Door County farm community formed Peninsula Pride Farms in an effort to share best practices designed to enhance soil health while reducing ground and surface water impacts.

Representative Joel Kitchens worked with state officials to extend the proposed Total Maximum Daily Load ("TMDL") waterway testing to include Door and Kewaunee counties. The results of these tests will allow the state and Federal agencies to set limits on the effluents that can enter our waterways. And now, the U.S. Department of Agriculture's Natural Resources Conservation Service announced a multi-million dollar commitment to aid county farmers with cost sharing that will help them improve their operations and critical protections of our waterways.

Today, Kewaunee County can rightfully claim to be a leader among Wisconsin's counties in responding to the threats impacting our irreplaceable water resources. There is still much more to be done. We will need Peninsula Pride Farms and farmers at large to continue improving farming practices that will reduce the impacts on our land and water while improving soil retention and soil health. We will need to work together to take on the challenges already identified in the DNR's Aquatic study of the East Twin River and the findings of the new "TMDL" study. We will need on-going water testing to measure our progress.

Still, I can't help but be very proud of the efforts of those in our community who proved once again that our citizens are truly our most precious resource.

MARK YOUR CALENDAR! Meetings, Events and Happenings

January 8 and February 28
CWAC Board Meetings
Members are invited to attend monthly board meetings on the UW-Green Bay campus.
Call us at 920-421-8885 for the room number.

1st and 3rd Saturdays, November 3 to April 20
9 AM-2 PM
Winter Market on Military

Green Bay Plaza, 1481 West Mason St.

Hand-crafted, home-made and locally grown products. Plus seasonal specialties and BayCare bags! Fall and winter produce, organic foods, preserved foods, meat, eggs, honey, bakery, maple syrup products, pet treats, arts and crafts and more!

Select Saturdays, December 15- February 23
Winter Farmer's Market Presented By Bellin Health
KI Convention Center - Exhibit Hall C, Green Bay

- The event is free to attend, there are 80+ vendors including local meats, cheeses, bakery, prepared foods, vegetables, canned items, coffee, and handcrafted art pieces.
- Jenstar Yoga will offer a free class at 9 a.m. in the private ballroom immediately next to the market. Bring your own mat for a low-impact exercise in between shopping.
- Free Parking is available in the Main Street Ramp with skywalk access to the KI Center.
- EBT (Electronic Benefits Transfer) will be available on-site.

Farmer's Market Dates are listed below:
December 15, 2018
January 12, 2019
January 19, 2019
February 9, 2019
February 23, 2019

Saturday, January 19, 8:45 AM
Toward Harmony with Nature
Oshkosh Convention Center, 2 North Main St. Oshkosh

Celebrate the 23rd *Toward Harmony with Nature* conference with Wild Ones Fox Valley Area. The keynote speaker is David Cordray, owner of Environmental Returns LLC. He will discuss the value of ecological restoration and share a brief summary of his journey to ecological awareness. Cordray's first career was in the field of environmental-monitoring satellites. He left engineering in 2008 to work in the fledgling field of restoration ecology. Since 2001, he and his wife, Debra, have been actively restoring their 100 acres to prairie and oak savanna. The conference also includes nine break-out sessions by experts on a whole spectrum of topics such as prairie ecology, native plants, oak savannas and wildlife through landscaping. Visit with vendors and exhibitors, pick up helpful resource materials and bid on silent auction items. Enjoy mingling with other native plant enthusiasts.
Register now on-line at www.TowardHarmonywithNature.org

Thursday, January 24, 6:00 PM
Public Presentation on Coal-tar Pavement Sealants
Crossroads at Big Creek, 2041 Michigan Street, Sturgeon Bay

Coal tar-based pavement sealants are toxic to human health & harmful to our water resources. This event with teach you about the human health & environmental harms of toxic coal-tar sealants and what actions you & your community can take to protect your health and our water resources. The event is being hosted by Clean Water Action Council, Clean Wisconsin, the Lakeshore Natural Resources Partnership, and the Fox-Wolf Watershed Alliance.

January 24-25
Preserve Annual Local Leadership Summit
Gordon Bubolz Nature Preserve
4815 N. Lynndale Dr., Appleton

The Wisconsin Academy and partners will convene a two-day, regional summit to share practical resources and explore emerging issues in local energy planning and resilience in Wisconsin communities. Local government and tribal leaders and representatives from organizations actively serving as resources to these communities are invited to attend one or both days of the summit.

- Day 1 (January 24) will consist of plenary and breakout sessions, followed by an evening reception with a light dinner and live music. Expert speakers will focus on the best opportunities for local governments and other community leaders to effectively engage in energy decisions, how to move beyond emergency response to practical planning for community resilience, how to prepare Wisconsin for electrified transportation, urban and rural energy equity issues, and more.
- Day 2 (January 25) will feature plenary sessions and an on-site tour. The day will begin with a local leadership panel featuring elected officials, and will continue with discussions on non-wires alternatives including microgrids, which attendees will learn more about during a guided tour of the Gordon Bubolz Nature Preserve's new microgrid.

Register now through January 4, 2019, and receive "early bird" rates starting at $95.00 for the full summit. Discounted rates are available for local government, nonprofit, and tribal leaders. Thanks to our Summit Investors, we are offering a limited number of travel scholarships. To see if you qualify for a travel scholarship, please visit our Travel Scholarships page.

Registration: https://www.wisconsinacademy.org/powering-local-leadership-summit-energy-resilience

MARK YOUR CALENDAR!

January 25-27
The 88th Annual WFU State Convention
Red Lion Hotel Paper Valley, 333 W. College Ave., Appleton

The Wisconsin Farmers Union's annual convention gives the opportunity to gather the Wisconsin Farmers Union community. There will be workshops, speakers, and the opportunity to participate in our grassroots policy discussions. More details and registration information are available on their website at https://www.wisconsinfarmersunion.com/convention

February 5, 6:30-8:30 PM
The Niagara Escarpment Film Showing with Roger Kuhns
Christie Theater, UW-Green Bay

A film showing and discussion lead by geologist Roger J. Kuhns. The film produced by Kuhns presents the history of the Niagara Escarpment by bringing viewers through a journey in time. The event is sponsored by Clean Water Action Council, UWGB PEAC, and the UWGB Geology Club.

Wednesday, February 27, 10:30 AM - 4:15 PM
Wiscoinsin Farmers Union Farm & Rural Lobby Day
Bethel Lutheran Church, 312 Wisconsin Ave., Madison

Join fellow farmers and rural residents to talk with legislators about important issues in your community. The event is free and lunch will be provided. Contact Government Relations Associate Bobbi Wilson at 608-234-3741 or bwilson@wisconsinfarmersunion.com for more information.

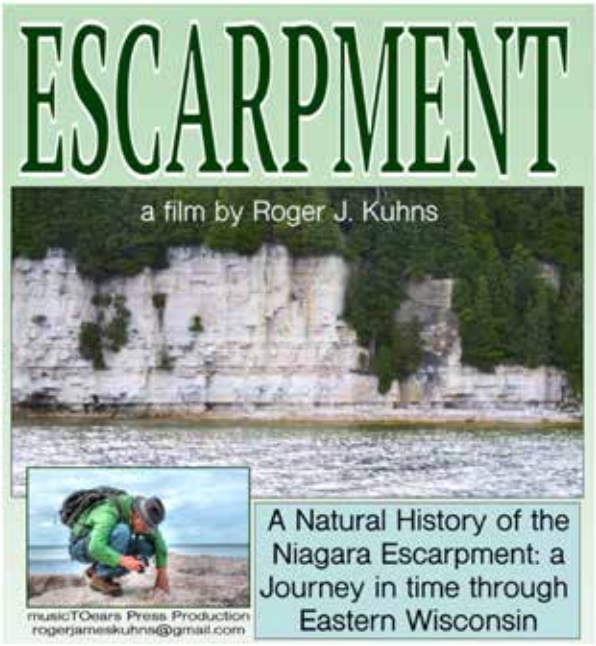
April 4 & 11, 1-3 PM
Citizen Action to Protect the Waters of Northeast Wisconsin with Dean Hoegger
A UWGB Lifelong Learing Institute Class

Hoegger will share thoughts on the current threats to area surface and ground waters. These include manure spreading, mining, and now, the perfluorinated chemicals which are threatening the City of Marinette ground water and the bay of Green Bay. He will discuss why citizen action is needed to protect our waters, detail current citizen actions, describe barriers to citizen participation and make suggestions for citizen action. The second session will feature "*Searching for Sustainability,*" a locally produced documentary shown on Wisconsin Public Television that provides a balanced presentation regarding efforts to protect our water resources. https://www.uwgb.edu/lifelong-learning-institute/course-catalog/ Coordinator: Vickie Keigley, 920-437-2510 vakeigley@gmail.com

April 27, 2019
CWAC Dinner, Dance, and Silent Auction
SAVE the DATE!

ONE OF THE MOST SIGNIFICANT GEOLOGICAL FEATURES IN NORTH AMERICA

THE NIAGARA ESCARPMENT



UW-Green Bay Christie Theatre
Tuesday, February 5, 2019
6:30 p.m. to 8:30 p.m.
Sponsored by Clean Water Action Council, UWGB PEAC, and Geology Club

Public Presentation on coal-tar pavement sealants

Coal tar-based pavement sealants are toxic to human health & harmful to our water resources.

Join your neighbors to learn more about:

- **human health & environmental harms** of toxic coal-tar sealants
- **actions you & your community can take** to protect your health and our water resources

JAN. 24
CROSSROADS @ BIG CREEK, STURGEON BAY
2041 Michigan St.
6:00 P.M.

www.cleanwisconsin.org/pah

CWAC Accomplishments for 2018

Here are some significant actions that member donations supported. Thank you!

- Continued efforts with two petitions to the EPA under the Safe Drinking Water Act and Clean Water Act.
- Continued lawsuit against the DNR to overturn their settlement with the Wisconsin Dairy Business Association to give up DNR's authority over calf hutch manure runoff.
- Attended the Wisconsin Environmental Health Network Conference with two interns and networked with presenters for the toxic chemical health forum and future forums.
- Held three Health Forums: "Protecting your family from toxic chemicals," "Protecting your family's indoor air quality," "The Effect of Agricultural Practices on Food Quality and Human Health."
- Exhibited at the New Leaf Farm Market, Green Bay Farmers Market, and the American Association of University Women presentation and meeting.
- Held annual fundraiser featuring locally sourced Dinner, Program, Dance, and Silent Auction.
- Published four quarterly newsletters.
- Participated in Congressman Gallagher's Save the Bay Committee and attended area farm field demo days.
- Participated in the 19th Annual Watershed Conference and networked with other environmental groups.
- Gave nine presentations on citizen efforts to protect the waters of Northeast Wisconsin in the Green Bay, Oconto Falls, Sturgeon Bay, and Sister Bay areas and spoke on two radio programs.
- Continued efforts to have NR151 manure spreading rule revisions approved by encouraging public comment and testifying before the WI Natural Resources Board.
- E-mailed Weekly Update to 950 recipients each week which contained information about recommended actions, water pollution permit notices for renewal and variances, events, and links to important news.
- Shared concerns and gave recommended actions regarding bills that would impact the environment and/or human health including the wetlands bill and Michigan's Back Forty Mine.
- Supervised the work of six UWGB student interns to guide them with managing an environmental non-profit organization and provided workshops, trainings, and networking opportunities to advance their education and career.
- Furthered efforts to increase membership in our Planned Giving Circle of Friends.
- Researched perfluorinated chemicals and served on a steering committee in Marinette to address PFC contamination there and educated members and the public about the threat.
- Continued efforts to educate the public about the health threats from spraying manure.
- Wrote an appeal to a manure pit permit for members and consulted with their attorneys.
- Attended the WI River Alliance banquet to receive the Water Heroes Award to CWAC.
- Testified or submitted comments on permit renewals and permit variances.
- Attended conference on polycyclic aromatic hydrocarbons (PAHs) associated with coal tar based blacktop sealants and began planning for public presentations in 2019.
- Held a conference for farmers and landowners about managed grazing, a practice to improve farm profits while protecting surface and ground water.

CLEAN WATER ACTION COUNCIL
of Northeast Wisconsin

MISSION STATEMENT

The Clean Water Action Council of Northeast Wisconsin Non-Profit Corporation is organized to promote a safe, healthy, and sustainable environment in northeast Wisconsin, to educate and inform members and the public on environmental issues, and to take action on behalf of members and the public to protect the environment and human health. All operations are exclusively for charitable and educational purposes and for the promotion of environmental justice.

Join or Renew Your Membership to Clean Water Action Council for 2019!

☐ Renewal ☐ New Member Date_____

( ) $20 Individual ( ) $30 Family **(this amount would really help)**

( ) $50 Sustaining ( ) $100 Donor ( ) $500 Benefactor

( ) Non-member donation of $ _____for_____

( ) Other $_____

( ) Please send me information about making a planned gift to CWAC

Name(s)_____

Address _____

City _____State _____ Zip _____

Phone _____

E-Mail _____

Receive FREE newsletters with each membership.

Please choose one...

☐ Printed version ☐ E-mailed version

PLEASE VOLUNTEER!
(BE SURE TO PROVIDE PHONE NUMBER ABOVE)

☐ the newsletter ☐ events ☐ work at office ☐ mailings

☐ joining or leading one of the committees ☐ other

Send check or money order to: **Clean Water Action Council**
P.O. Box 9144
Green Bay, WI 54308

CWAC is a registered non-profit organization.
Your contributions may be tax-deductible. ***Thank you!***

Office location:
A307 MAC Hall, UW-Green Bay
2420 Nicolet Drive
Green Bay, WI 54311

www.cleanwateractioncouncil.org

Find us on Facebook or updates on hearings and current or upcoming events.

The newsletter, "Clean Water Action Council of N.E. WI" is published quarterly by the Clean Water Action Council of Northeast Wisconsin, Inc., P.O. Box 9144, Green Bay, WI 54308, a registered non-profit charitable, educational organization. *Contributions may be tax-deductible.*

CONTACT US

By phone: 920-421-8885
If you leave us a message, we will try to get back to you within 24 hours.

By mail:
Clean Water Action Council
P.O. Box 9144
Green Bay, WI 54308

By e-mail:
contact@cleanwateractioncouncil.org

Clean Water Action Council of Northeast Wisconsin
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Green Bay, WI 54308

Please RENEW YOUR **2018 MEMBERSHIP FOR 2019** and ASK A FRIEND TO JOIN!

in this issue...

For previous newsletters, go to: www.cleanwateractioncouncil.org