



*Making a Difference for the Environment
Locally and Globally Since 1970*

October 1018

Serving Kent, Portage County and Beyond

Welcome to the October 2018 issue of the Kent Environmental Council newsletter. The focus for KEC in 2018 is making connections.



Lake Erie Data at Your Fingertips--Instantly!

Are you heading out to Lake Erie to fish or swim, and want to know the condition of the lake **right now**? Better than "an app for that," you can text your request and instantly receive a message from the data buoy itself. How cool is that?!



Solar-powered buoy

Ok, so here's how it works. Sixteen solar-powered buoys are deployed on Lake Erie--from the far eastern stations off of Dunkirk, New York, to the westernmost buoy off of Monroe, Michigan. Each buoy contains at least two multiparameter data sondes (devices for testing physical conditions) that monitor water-quality variables such as water temperature, conductivity, dissolved oxygen and chlorophyll as well as external variables such as air temperature, air pressure, wave height, wind speed and wind direction. Each buoy reports the conditions at the surface and at the bottom of the lake. In deeper waters, the buoys collect data at two-meter intervals from the surface of the lake to the bottom of the lake to anticipate the development and extent of "dead zones" in the bottom waters. Some buoys even have a camera onboard that takes real-time images that can be accessed online. These data are stored onboard in a data-logger and are downloaded at half-hour intervals to a central server at LimnoTech, a private environmental consulting firm in Ann Arbor, Michigan. To access the current data, text a buoy identification number to the server in Ann Arbor and, within seconds, the server texts you a message with the available information.

The buoy identification numbers for some buoys closest to Cleveland and the westernmost and easternmost buoys on Lake Erie are given below:

Buoy ID	Location
45164	Cleveland DO - a deep water station (20 m)
45169	Cleveland water - in deeper waters in the Central Basin
45176	Cleveland intake crib - three miles offshore
GLERLWE8	Westernmost point - off of Monroe, Michigan
45142	Easternmost point - Point Colborne, a few miles west of Niagara Falls, New York

For a comprehensive view of all the locations, go to <https://glbuoys.glos.us>.

As an example, I texted the server 734-418-7299, and then entered the number for the Cleveland intake crib, 45176. I received a text reply within seconds, notifying me that at "4:30 p.m. EDT the wind was coming from the northwest at 7.8 knots, with an air temperature of 74.8 F, water temperature of 75.7 F in waves of 1.0 feet." In short, it was a great day on Lake Erie to go boating and fishing.

But wait-there's more! More buoys, that is. A network of buoys spans the Great Lakes: 13 in Lake Superior, 21 in Lake Michigan, 9 in Lake Huron, 16 in Lake Erie and 9 in Lake Ontario. Another buoy is located in Lake Champlain near Burlington, Vermont, just south of Montreal, Ontario, Canada. The buoys cost about \$50,000 each to deploy and are supported by both public agencies (e.g., NOAA's Great Lakes Environmental Research Laboratory, Environment Canada, and Ontario Ministry of the Environment), academic institutions (including State University of New York College of Environmental Science and Forestry, University of Minnesota, University of Toledo, Bowling Green State University, and Ohio State University) and as private companies (such as Limno-Tech and LEEDCo [Lake Erie Energy Development Corporation]). The deployment of this network of buoys costs more than \$3.5 million in equipment alone. Given the expense of monthly maintenance on each buoy, it is clear that more is at stake than the convenience of weekend boaters.

The buoy network provides the infrastructure needed to develop a "smart lake." A smart lake is similar to a "smart city." In a smart city, the workings of the municipality are controlled like an integrated system. Think of traffic flow being controlled to optimize the efficient flow rate of trucks and cars on a citywide basis. Or think of the electrical grid in a city being monitored and managed as a system for optimal stability and availability of energy for workers and residents. For a smart lake, think of managing the efficient flow of ship traffic through the Great Lakes system. Or think about monitoring and managing water quality for the 14 million people who depend on Lake Erie for their drinking water. While not yet a smart city, Cleveland could have a smart lake one day. The Cleveland Water Alliance (a consortium of academic, commercial, governmental, and nongovernmental organization stakeholders) is spearheading an effort to make Lake Erie a smart lake through innovative water technologies.

For more information about network of buoys, which is part of the Great Lakes Observing System, click [here](#). To watch a video about the buoys produced by Rock the Lake, click [here](#).

--Bob Heath

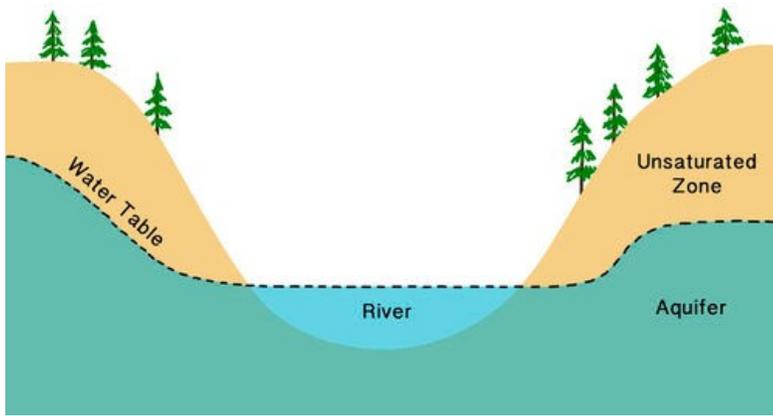


GRACE from Above Keeping an Eye on Groundwater Below



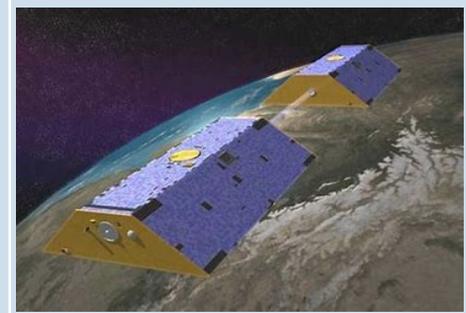
Most people in the world, including everyone in the city of Kent, depend on groundwater as their source for drinking water--and for good reasons: ground water is 100 times more abundant than surface water, its abundance is less variable than surface water, and ground water in general does not have many of the problems that constantly plague surface water. For example, surface water is susceptible to pollution from airborne contaminants (such as mercury from coal-fired power plants) and contaminants in stormwater runoff (such as nitrogen and phosphorus from agricultural activities and the associated toxins from hazardous algal blooms). Surface water also is more susceptible to the vicissitudes of weather patterns such as the three-year drought in Georgia that nearly drained Atlanta's major drinking water reservoir.

Groundwater aquifers have one major threat: drying up--either from water being withdrawn faster than the aquifer can be replenished by natural process (typically because of population increases that lead to increased demand for water) or from an aquifer replenishment rate that is too slow (typically because too much pervious surface has been lost to roadways and urban landscapes). Another potential major threat to groundwater sources is changes in weather patterns as a result of global climate change. The danger here is a slower groundwater recharge rate. Because most people in the world depend on groundwater as their sole source of water for drinking and for commer-



cial activities, if aquifers shrink to the point of being unable to support the people who depends on them, major populations shifts may occur. If you think that immigration is a problem as people seek a better life, think about what will happen as people immigrate to stay alive. This potential exodus is why the U.S. military views loss of water resilience as a major threat to international security.

Never has it been more important to monitor the size of global groundwater aquifers as global populations increase and aquifers potentially decrease. The problem is that groundwater is out of sight and not as easy to monitor as surface water is. But help is on the horizon and passing overhead every 90 minutes. GRACE (Gravity Recovery and Climate Experiment) is not just another satellite; rather, it's two satellites in exactly the same orbit but spaced about 137 miles apart at an altitude of 300 miles. A balance between the momentum of the satellites and gravitational pull exerted on them by the Earth keeps the two satellites from colliding with each other. For example, as one satellite passes over a region of higher gravity, such as a mountain range, it is pulled into a lower orbit, increasing the distance between the two satellites, which is measured precisely by microwaves that are constantly beamed from each satellite to the other. Satellite GPS instruments record the exact coordinates of the satellites. In this way a "gravity map" of the entire Earth is determined.



GRACE (Gravity Recovery and Climate Experiment) satellites

GRACE satellite observations from 2002 to 2017 have shown that while the mass of mountains does not change over time, the mass of water does change. The simple explanation is that water moves, but mountains do not. In other words, water moves and therefore its mass at any given point is a sum of the parts that can move (water) and the parts that do not move (the mountains). As a region on Earth become wetter, the mass of that region increases; conversely, as that region becomes drier, the mass of the region decreases. After comparing the gravity maps from several passes of the GRACE satellites over several years, NASA scientists were able to determine which regions are becoming wetter and which regions are getting drier. The original GRACE satellites stopped working in 2017; however, a set of replacements--the GRACE-Follow On satellites, or GRACE-FO, for short--was launched in May 2018.

Analysis of the gravity maps during the 15-year life of the original GRACE satellites led NASA scientists to detect trends in water-distribution changes. The scientists summarized their findings by saying, "The wet places are getting wetter and the dry places are getting drier." The wet places are the high latitudes (i.e., polar regions) and the tropics (i.e., regions near the equator). The temperate regions (the middle latitudes, which span between the tropics and the polar regions) are getting drier. The scientists note in their report that "within the dry areas we see multiple spots resulting from groundwater depletion."

But why? These changes were examined for causes ranging from changes in rainfall patterns to cyclical changes in weather patterns to changes in human activities and demography. The scientists found that

one of the consistent causes of groundwater depletion is agricultural activity and that the effect is visible in such diverse places as Saudi Arabia, western Australia and the Central Valley of California. In California, for example, farmers in the Central Valley, an area often referred to as the "fruit basket of the United States," were forced to rely more and more on groundwater during a three-year snowfall drought in the northern part of the state diminished the supply of surface water typically used to irrigate crops. Whether these trends are the result of climate change or the result of cyclical weather patterns remains unknown. The data-collection period was not long enough to answer that question. Thanks to GRACE-FO, that question will be addressed. Stay tuned.

Want more information? Go to <https://gracefo.jpl.nasa.gov/resources/38/grace-fo-fact-sheet/> for a fact sheet and go to <https://gracefo.jpl.nasa.gov/resources/73/for-15-years-grace-tracked-freshwater-movements-around-the-world/> for a NASA video.

--Bob Heath



Yes, Yes . . . but Can You TRUST the Water?

The other day I had a strong lesson in "environmental white privilege." I was invited to participate in a water roundtable discussion sponsored by The Nature Conservancy, the Alliance for the Great Lakes and the Ohio Environmental Council. The event was promoted as a discussion among a wide variety of stakeholders regarding their "views on water" in general and on Lake Erie in particular. The stakeholders at the table ranged from a former head of the Lake Erie Commission to wastewater treatment professionals to artists to local residents. I was there because of I am a science writer, my research interests include water quality in Lake Erie, I had been part of the Great Lakes Compact Advisory Panel, and I had participated in the development of management strategies for Lake Erie as part of the U.S. Environmental Protection Agency Science Advisory Board. Each of us was asked to speak only from our experience and not launch into hearsay or hypotheticals.



Did I mention that some of the stakeholders were local residents? You know, those folks who depend on Lake Erie as their sole source of drinking water. Those folks were just there asking for nothing more than reliable drinking water--"just folks" similar to those in Flint, Michigan, who also depended on the Great Lakes as their sole source of drinking water. Did I mention that this meeting was held in a community resource center at East 142nd Street and Kinsman Road in Cleveland, a "mixed neighborhood" ranging from dark-skinned African-Americans to light-skinned African Americans. It's the kind of "hood that white folks usually find a way to avoid.

The moderator of the discussion started with innocuous questions such as, "What is your relationship to water?" and "What is the most important issue regarding water--personal or professional?" The questioning soon took on a sharper edge, with questions such as, "What threats to water pose the most risk to you--commercial or industrial or residential or whatever?" The answers were fairly much what one might expect: people need water to live, people want to swim and fish in the water, people depend on water availability for both per-

sonal and economic reasons, hazardous

algal blooms put toxins in the water, and so on. For me, the most telling remark was from one of the local residents. He said, "We here don't trust the water because of Flint." I heard him saying that just like the folks in Flint, the local residents in Glenville (on the east side of Cleveland) believed that they, too, could be neglected or lied to regarding the quality of their water and that no one in a management position would care to make it a priority to address local water-quality issues as an urgent matter. Their only recourse, they believed, would be to buy bottled water to drink. Do the math. An average person drinks a gallon of water each day; a pint of water costs a dollar--a gallon costs eight dollars. Per day. Each day.



Did I mention that this was a dinner meeting? But dinner never arrived. Although the caterer had taken the event organizer's money, the caterer forgot the meeting date. An attempt to order pizza from a local pizzeria was only partially successful. The pizzeria took the group's order and their money but would not deliver the pizzas "because

the driver didn't feel safe delivering to that address." The event organizer apologized to the group for lack of food by saying, "That's the way it is in this neighborhood all the time."

As the water roundtable concluded, I became aware of yet another dimension of water: **trust**. When I drafted drinking-water management plans in the past, I believed that all I had to address was abundance of high-quality water. Then I realized that high-

quality water can be abundant--but only at certain times of the year (e.g., only during the "wet season" in equatorial Africa). That realization helped me to become aware of the need for sustainable quantities of water. Later I realized that it could be possible to have high-quality water in sustainable quantities but that accessibility through insufficient infrastructure could be a problem. Now, at the water roundtable, I began to realize that it is possible to have abundant high-quality water in a sustainable and reliable supply that has sufficient infrastructure to deliver the resource throughout a large metropolitan area, but its safety for drinking may be suspect for lack of trust among the people on the receiving end. People need to be able to trust the quality of their water every time they turn on the tap. Even if the tap is in a neighborhood unable to have pizza delivered. It's federal law.

I left the meeting with an array of impressions and feelings. As I got into my car, I turned on the radio to listen to NPR, pressed the button for the air conditioning system and then turned onto Kinsman Road toward home. The pizza driver would feel safe delivering to my place. I don't distrust the drinking-water quality of the tap water, and I have never felt the need to buy bottled water for the safety for my health. Did I mention that I'm white?

--Bob Heath



Travels with Iris: On the Road Again

That trite phrase captures summer of 2018 for me. Although the original plan was to head East, once again our travels took us to the Pacific Northwest and into the Southwest. It was five weeks, more than 8,000 miles and 11 states. We saw two state parks (Indiana for one night and Oregon for almost a week). We also visited Craters of the Moon in Idaho, Colorado National Monument in Colorado and Cedar Breaks in Utah. This year's national park visits included Zion, Bryce Canyon and Rocky Mountain.

As you can see from even my very nonprofessional photos (see them below), the Oregon coast, the national monuments and the national parks are spectacular. At both the monuments and the parks, interpretative signs were heavily weighted toward explanations of the environment, the way the (changing) environment shaped and shapes the landscape, indications of what had been, and what is being done to address stewardship of the environment. At Craters of the Moon, we read a description of the failed attempt to eradicate witches' brooms (which can look like a bundle of twigs or a witch's broom or appear as a ball-shaped dwarf plant growing in a tree) that are created by the dwarf mistletoe parasite. One of the interpretative signs stated: ". . . Management and control efforts in the 1960's were unsuccessful and resulted in the removal of 6000 limber pine trees. Today, dwarf mistletoe is recognized as a natural parasitic organism that has been a part of the Craters of the Moon limber pine ecology for hundreds to thousands of years. It has become an issue of "which is worse, the disease or the cure?" I found it interesting that the management error was not only corrected in terms of current management efforts but also that the error was noted publicly.

Other parks noted changes in the landscape over time caused by human intervention (for example, climate change or interference with fragile ecosystems). We spent time listening to a ranger (with family ties to Cuyahoga Valley National Park) give a talk about the spread of white nose syndrome among bats and ways the National Park Service is trying to halt its spread within the parks. I would like to think that the various environmentally sound activities and signage will continue.

Enjoy the views . . .





View from Spectra Point at Cedar Breaks National Monument (Utah)



Bristlecone pines have to be tough to grow and survive at elevations up to 10,000 feet while being exposed to extreme temperatures, powerful winds, and poor soils.

Look around the Spectra Point area – you’ll notice there aren’t many plants growing near the bristlecones. The poor limestone soil and harsh conditions make it impossible for most plants to survive.

Some of the bristlecone pines at Cedar Breaks are close to 2000 years old. The oldest bristlecones in North America may have just been seedlings when the Egyptian pyramids were built almost 5000 years ago.

Bristlecone pines are the oldest known living organisms in the world!

Some bristlecone pine trees in Cedar Breaks National Monument (Utah) are close to 2,000 years old.



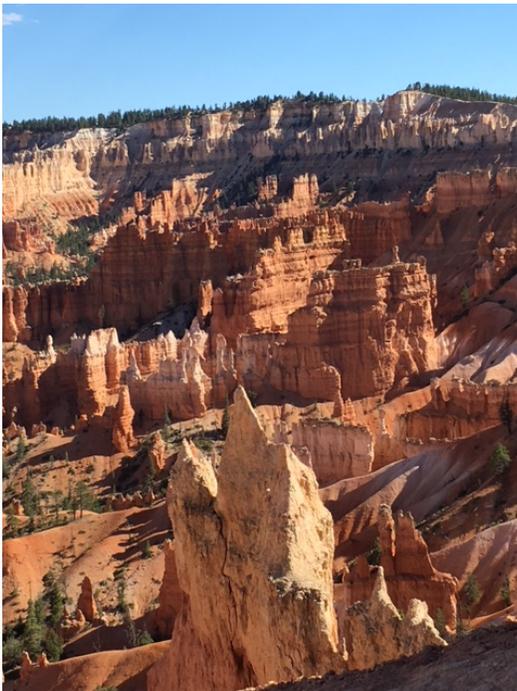
Bristlecone pine trees in Cedar Breaks National Monument (Utah)



Tunnel in Dixie National Forest (Utah)



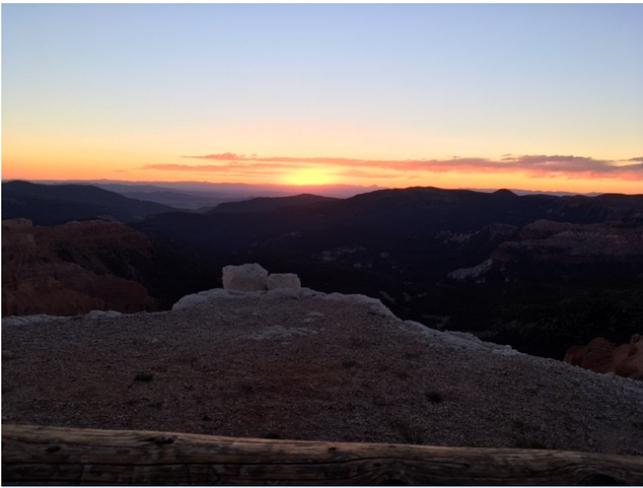
Solar array in Bryce Canyon National Park (Utah)



Hiking the Queens Garden Trail (and I'm afraid of heights!) in Bryce Canyon National Park (Utah), which begins at Sunrise Point and descends 320 feet



Bryce Canyon in Bryce Canyon National Park (Utah)



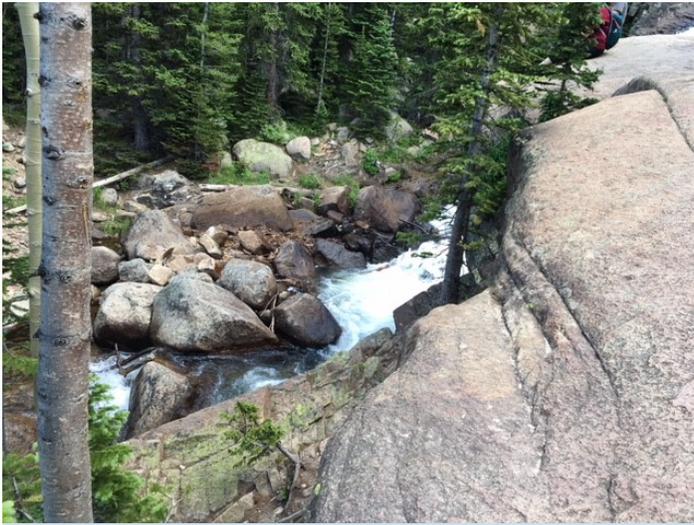
Sunset at Cedar Breaks National Monument
(Utah)
on the summer solstice



View of the Rocky Mountains from our
campground



Rocky Mountain National Park
(Colorado)



Alberta Falls in Rocky Mountain National Park
(Colorado)



Bear Lake in Rocky Mountain National Park
(Colorado)



Nymph Lake in Rocky Mountain National Park
(Colorado)



Dream Lake in Rocky Mountain National Park (Colorado)



Smoke over the Rocky Mountains

—Iris Meltzer



The Perils of Plastic

Twenty-two million pounds of plastic go into the Great Lakes every year. The Great Lakes is the largest freshwater system in the world, but it has been used as a dumping ground. The oceans also are filled with plastic, with 80% of it coming from the land. Plastics break down into small microplastics, which we eat when we consume fish and drink beverages. Lake Erie contains more microplastics than any other of the Great Lakes and more than any other body of water on earth, according to Sherri A. Mason, Ph.D., professor of chemistry and chair of the Department of Geology and Environmental Science at the State University of New York at Fredonia, who spoke at the Cleveland City Club on August 14.

Plastics were created at the turn of the last century, but manufacturing of such products ramped up after World War II. Disposable items became all the rage. The use of disposable items increased over the years and, by 2015, 300 million tons of plastic had been produced. Unlike glass and metal, plastic is moldable, light and durable; however, this durability is a big problem now.



So where does plastic go? A 2012 study found that 8 billion tons of plastic have ended up in the oceans; a 2004 study found that 80% of ocean plastic is coming from the land. Photo-degradation causes plastic to break into smaller and smaller pieces, resulting in microplas-

tics. These tiny particles, which are less than the width of a hair, accumulate in the water. Lake Erie has 230,000 particles/km. Tributaries have an even higher abundance of microplastics.

Even more distressing is how much plastic people are ingesting (see the table below). For example, a survey of bottled-water consumption worldwide found that 93% of the bottles contained plastic contamination and that the contamination from microplastics was anywhere from double to 16 times greater than with tap water! No brands were found to be plastic-free.

Consumer Product	Region	Average Number of Particles per Sample	Estimated Yearly Consumption
Sea salt	United States	212 particles/kg	180 particles
Beer	Great Lakes	4.05 particles/L	520 particles
Tap water	Global	5.45 particles/L	5,100 particles

No studies have been conducted on how the consumption of microplastics affects human health; however, it is known that certain plastics are tied to cancer, obesity in children under 6 months of age, increased sperm counts, for example. The best course of action is to err on the side of caution. A United Nations working group rates plastics as the No. 2 worldwide problem, just below climate change.

The real problem, however, is people. People need to stop the flow of plastics into the environment by changing their behavior. Start here:

- Reject single-use plastics. Carry your own bamboo utensils for eating on the go.
- Use a refillable metal water bottle rather than disposable bottles and cups for holding beverages.
- Bring reusable bags to stores. Advocate for consumer fees on plastic bags provided at stores and that the fees increase over time as a way to encourage the use of reusable bags.
- Carry your own metal straw if you want to use a straw. Advocate that straws should not be given out with every single drink at restaurants.
- Decrease the way plastics come into people's lives. Skipping the straw, the plastic bag and the plastic bottle is important because these three items comprise 65% of the plastic people use. Other ways to curb the use of plastics include the use of crushable toothpaste tablets and carrying your own containers to stores and restaurants.

Efforts aimed at advocating for a ban on microbeads were successful, with the ban going into effect on July 1, 2018. Antilittering campaigns face an uphill battle because so much corporate money is behind bottled water, and cities cannot compete with these businesses.

The development of an infrastructure to collect, market, buy and reuse plastics is a problem that society, as a whole, needs to address.

Granted, plastics are recycled today, but postconsumer plastic often is a combination of so many different kinds of plastics that it is easier to use new material to make plastic items. At the same time, the global market price for recyclables has dropped considerably. Many people are working on making plastics more biodegradable using different processes.



In the end, Mason encouraged the audience to not underestimate the influence of individuals.

Look for more information on plastics in our next newsletter.

--Lorraine McCarty



What Is Repair Cafe?



Repair Cafe is an international movement to save money and resources by gathering local volunteer experts to repair items normally

found around the house. The items remain useful but a minor problem. The movement is popular in Europe. Locally, Rich Patterson is trying to establish a repair café in Portage County. He has talked about it at KEC's Friday breakfasts. If you are interested in learning more or helping with this effort, contact Patterson at 330-245-6277 or rpatterson19@gmail.com.



EPA and Environmental Watch



This has been a banner year for seeing the effects of climate change--storms that contain much greater rainfall than if human-induced global warming were not occurring; triple-digit temperatures in California that produced the worst wildfires in the state's history; statistics that show an increased number of deaths from floods, fires, heat and asthma--all while the Trump administration is tries to pull out of the Clean Power Plan and lessen regulations for the benefit of companies in various industries. Thankfully, the courts are holding some of this back.

The U.S. Environmental Protection Agency continues to promote fossil fuels and the companies that produce them while assaulting the climate and public health with proposals to weaken the requirements for monitoring and repairing methane leaks from gas and oil wells and setting no limits on power-sector carbon pollution. Methane is 86% more powerful than carbon dioxide at trapping heat over the short run, and methane leaks also emit other volatile organic compounds, including benzene, a well-known carcinogen--creating risks to the climate and to people's health. (The EPA is accepting comments on the Trump administration's proposal until October 31, 2018.)

The EPA also has told the outside scientists who advise the agency on the health impacts of soot that their service is no longer required and told individuals being interviewed for a new panel to evaluate ground-level ozone that the panel will not be formed. In addition, the EPA is trying to weaken the rules for radiation exposure despite past guidance that says any exposure to harmful radiation is a cancer risk. The EPA is "turning to scientific outliers who argue that a bit of radiation damage is actually good for you--like a little bit of sunlight." So much for scientific input.

Interior Department Secretary Ryan Zinke is trying to roll back the protection of public lands and allow uranium mining there while limiting the ability of native communities to protest and exposing such communities to the risk of health hazards such as cancer and kidney damage.

At the same time, Congress is seeking to weaken the Endangered Species Act by turning over to state and local governments many of the powers now held by federal scientists. Republican Party supporters say the change will make the act work better and eliminate obstacles to economic progress. Wildlife advocates call the proposal the wildlife extinctions package.

Meanwhile, the 9th U.S. Court of Appeals is ordering a ban on the deadly pesticide chlorpyrifos, saying that the EPA left the chemical on the market despite extensive scientific evidence that even tiny levels of exposure can harm babies' brains. One of the judges on the panel dissented from the majority ruling, so the EPA could appeal the court's decision.

And so the battle goes on--the economy versus the environment, people and animals.

Sources: *Akron Beacon Journal*, August 9, 2018; *Record-Courier*, September 27, 2018; Friends of the Earth, September 18, 2018; Physicians for Social Responsibility, September 25, 2018.

--Lorraine McCarty



The Environment in the News

Global Warming Will Increase Beer Costs

***Akron Beacon Journal* - October 16, 2018**

Scientists expect extreme heat and drought to decrease barley yield by 17%, which could double beer prices. Scientists thought this study was a way to illustrate climate change in a way that people could understand. Barley is very heat-sensitive. Global warming also will increase the cost of chocolate, coffee and wine. This study published in the *Journal of Nature Plants* come only a week after the release of a United Nations report describing how dangerous levels of climate change can worsen food and water shortages, heat waves, sea-level rise and disease.

2 Americans Win Econ Nobel for Work on Climate and Growth

***Akron Beacon Journal* - October 9, 2018**

William Nordhaus of Yale University and Paul Romer of New York University have been awarded a \$1 million prize for their work. Nordhaus was recognized for his work on the economics of a warmer world; Romer was recognized for his study of how governments can advance innovation that can solve even a threat as challenging as climate change.

Next Step for Nexus in Green

***Akron Beacon Journal* - July 18, 2018**

Construction crews are digging trenches and preparing to install the Nexus pipeline in Green, which will connect the eight-mile city pipeline with parts of the pipeline to the east and west of the city that already have been installed and buried. The city portion of the pipeline was delayed by a legal challenge, which has since been resolved.

Cleveland Is Ready for 100

***Sierra Club National* - September 22, 2018**

Cleveland committed to powering itself with 100% clean, renewable energy by 2050. It is the first municipality in Ohio and the 83rd city nationwide to establish such a goal.

Oldest U.S. Nuclear Plant Shuts Down

***Akron Beacon Journal* - September 18, 2018**

The Oyster Creek Nuclear Generating Station in New Jersey went offline for good on September 17. It was considered near the end of its useful life. The same day, the Nine Mile Point Nuclear Generating Station in New York also shut down. There are now 98 nuclear power plants operating in the United States. Ohio Edison is planning to close two plants in Ohio in the next three years, and two in Pennsylvania are scheduled to close in 2021

Fossil Fuels Are Killing the Ocean

***Akron Beacon Journal* - Commentary - September 16, 2018**

Carbon emissions are heating up the atmosphere and acidifying the world's oceans. From the beginning of the industrial age, about 30% of the atmospheric carbon dioxide produced by humans has been absorbed by the seas. Colder waters absorb more of the compound, while warmer waters absorb less. When carbon dioxide combines with the water, however, chemical reactions increase the water's acidity and reduce the availability of calcite and aragonite. These two carbonates are necessary for shell-building and have a negative impact on the ability of oysters, clams and snails to produce their shells; coral reefs lose their capacity to grow, reproduce and navigate. Krill eggs are less likely to hatch in acidified waters, and the fish, seals, penguins and whales that feed on Krill eggs cannot get enough food. In addition, sharks are less likely to smell their food source in an acidic environment. These are some of the consequences of the Trump administration's attempts to freeze--rather than strengthen--cur-

rent car-pollution rules. The public needs to make the connection between carbon dioxide pollution and the declining health of the world's oceans.

Massive Boom to Corral Plastic Trash in Pacific

***Akron Beacon Journal* - September 8, 2018**

A 2,000-foot floating boom/trash collection device designed to corral plastic litter floating between California and Hawaii is being towed to the Great Pacific Garbage Patch, which is twice the size of Texas. The Ocean Clean organization was formed by Boyan Slat, a 24-year-old innovator from the Netherlands. The buoyant, U-shaped boom is made of plastic, has a tapered 10-foot-deep screen, and is fitted with solar power lights, cameras, sensors and satellite antennas to communicate its position at all times. A support vessel will then fish out the collected plastic every few months, fill shipping containers for a year and take the debris to dry land for recycling. Clear Ocean officials say this launch is a test and will add to the fleet of such systems if the test is successful. One goal is to remove 50% of the Great Pacific Garbage Patch in five years and 90% of it in two decades. Some are skeptical of the latter goal because 9 million tons of plastic waste enters the oceans every year

Tariffs on Imported Newsprint Nosed in Win for U.S. Newspapers

***Record-Courier* - August 30, 2018**

The U.S. International Trade Commission (ITC) has blocked tariffs imposed by the Trump administration that were supposed to protect the newspaper industry. In testimony before the ITC, industry officials showed that the tariffs actually were hurting the industry, arguing that cost increases from the tariffs have led to a reduction in the number of pages that newspapers can afford to publish. A two-part process to make tariffs permanent required the ITC to find that the newspapers were harmed or threaten.

ed by imports from Canada, and they unanimously rejected this idea.

Utilities Focusing on Grid Upgrade

***Akron Beacon Journal* - August 26, 2018**

Utilities are shifting focus from building power plants to fighting cyberthreats, which they believe will keep profits growing. They are upgrading software, switches and wires with the goal of gaining more flexibility in the distribution of electricity. Investment firms tell utilities officials that upgrading the distribution grid will be the main growth source for five to 10 years. They say that it will help customers gain more control and convenience, allow for solar and wind energy, and make it more difficult for blackouts to occur and make power easier to restore after an outage--all while creating many jobs. The grid originally was built for one-way flow of power, but now renewable energy can flow in many directions. This new business model makes it more likely that customers will hit with rate increases

Rover Pipeline Receives OK

***Akron Beacon Journal* - August 26, 2018**

The Rover Pipeline has been given the green light by the federal government to begin service from Burgettstown, Pennsylvania, and Majorsville, West Virginia, making the pipeline fully operational for pipeline owner's long-haul contractual commitments beginning September 1.

Ohio EPA Gives Loans to Local Water Projects

***Akron Beacon Journal* - August 7, 2018**

The Ohio Environmental Protection Agency awarded \$209 million in low-interest loans and will forgive loans for wastewater and drinking water projects in Ohio, a savings of \$49 million statewide to various communities. In the Akron area, Summit and Portage counties, Silver Lake, Canton, Barberton, Louisville, and the Northeast Ohio Regional Sewer District all benefited.

Drilling Business to Slash Its Debt

***Akron Beacon Journal* - August 2, 2018**

Chesapeake Energy is selling its Utica shale acreage as a strategy to reduce its debt after showing a net loss last quarter of \$40 million. The affected area includes 933,000 acres in Ohio, which is being sold to Encino Acquisition Partners of Houston.

Ruling to Keep Green Deal Off Ballot

Akron Beacon Journal - August 31, 2018

The Ohio Supreme Court ruled that the measure put forward by the opponents of the settlement that the city of Green reached with Nexus Gas Transmission is not eligible for the November ballot because Citizens for Responsible Green Government waited too long to sue the city after its June refusal to certify the referendum petitions, citing a difference in wording between the petition the group circulated and the final legislation the city approved.

Farmers Changing with the Weather

Record-Courier - August 26, 2018

Weather-related issues have occurred in every generation. Since the 1990s, however, Ohio farmers have been adapting to climate change, including warmer temperatures and more precipitation, which researchers say is affecting everything from controlling pests and the timing of planting. Fred Yoder, 63, and a fourth-generation Ohio farmer, answers the question of what's changing with the answer, "Something's changing." Greenhouse gases formed from carbon emissions continue to increase temperatures. As temperatures go up, water vapors increase, which leads to more rainfall.

Members Vote to Create a New Task Force

Record-Courier - August 19, 2018

The Ohio Soil and Water Conservation Commission has voted to study how to follow Gov. John Kasich's order to reduce nutrient levels in Lake Erie by having farmers keep plans on how their fields are fertilized. The commission wants to get the plan right to minimize the phosphorus loads that lead to harmful algae blooms throughout Lake Erie's western basin. Water from the basin is used for drinking water and recreational activities. According to the Ohio Department of Agriculture, plans will not be required before 2020 so that farmers have time to prepare. Many farmers already have begun working to change their practices of how, when and how much they fertilize, but there is room for improvement.

AEP Scraps Wind-Farm Plan

Akron Beacon Journal - July 28, 2018

After Texas regulators rejected its \$4.5 billion project, AEP is scrapping plans for the largest wind farm in the United States. The 2,000-megawatt wind farm would have provided power to customers in Oklahoma, Texas, Arkansas and Louisiana. Arkansas and Louisiana approved the plan, but approval from all four states was required for the project to proceed.

--Summarized by Lorraine McCarty



KEC Membership

We welcome anyone who wants to join the Kent Environmental Council and support our efforts. If you are already a member, you will be receiving a reminder of renewal by mail the month before the expiration date for your dues. Remember, dues are the main source of income for KEC.

We need your support to do our work.

Just send in your name, address, phone, email address and your check made payable to:

Kent Environmental Council

and mail to: KEC, P.O. Box 395, Kent, OH 44240.

To join or renew online with PayPal, go to kentenvironment.org/Membership.

Membership levels are \$45, Sustaining; \$35, Family; \$25, Individual; \$15, Golden Buckeye; \$10, Student; \$500, Lifetime; and \$200, Organization. KEC dues are not tax deductible because the organization has a 501(c)(4) status.

View our Website at www.kentenvironment.org

Communicate with us on Facebook at <http://www.facebook.com/KentEnvironment>

Come for an informal breakfast discussion of environmental issues at Little City Grill every Friday at 8 a.m. No reservations necessary..