



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

August 2016

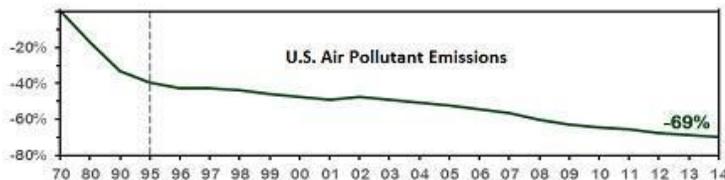
Serving Kent, Portage County and Beyond

Welcome to the August 2016 issue of the Kent Environmental Council newsletter
The focus for KEC in 2016 is sustainable cities.



Reducing Greenhouse Gas Emissions: Part 1

Cleaning up carbon pollution protects the environment and supports a strong, clean-energy economy. Carbon pollution issues are so big that some people think there is nothing they can do to make a difference. But this is far from the truth. There are a wide variety of solutions already at hand that provide cost-effective opportunities to achieve significant carbon pollution reductions. These solutions include promoting energy-efficient homes and businesses, improved industrial practices and cleaner sources of energy. The U.S. Environmental Protection Agency has introduced standards that reduce carbon pollution from the largest sources, such as power plants, cars and trucks. "These standards will prevent harmful pollution from our power plants, and cars and trucks, while saving consumers money at the pump and building a strong, clean-energy economy," says the EPA.



Aggregate emissions of six common pollutants dropped 69% between 1970 and 2014.

"As history has shown, taking action under the Clean Air Act can protect the air we breathe, improve our environment, and support a growing American economy," says the EPA. But we all need to pitch in and do more to prevent climate change. Over the next few issues of this newsletter, we will continue to present steps for your workplaces, autos, and schools, while advocating for the city of Kent to do more as well.

What You Can Do: At Home

The following tips are taken verbatim from the EPA's website. For more links about any of these issues, go to <https://www3.epa.gov/climatechange/wycd/>

Making a few small changes in your home and yard can reduce greenhouse gases and save you money. Here are 10 simple steps you can take to reduce greenhouse gas emissions:

1. Change five lights

Replace your five most frequently used light fixtures or the lightbulbs in them with ENERGY STAR® qualified products and you will help the environment while saving \$70 a year on energy bills. ENERGY STAR lighting provides bright, warm light; generates 75% less heat; uses about 75% less energy than standard lighting; and lasts from 10 to 50 times longer.



2. Look for ENERGY STAR

When buying new products for your home, look for EPA's ENERGY STAR label to help you make the most energy-efficient decision. You can find the ENERGY STAR label on more than 60 kinds of products, including appliances, lighting, heating and cooling equipment, electronics, and office equipment. Over their lifetime, products in your home that have earned the ENERGY STAR label can reduce greenhouse gas emissions by about 130,000 pounds and save you \$11,000 on energy bills.

3. Heat and cool smartly

Heating and cooling accounts for almost half your energy bill--about \$1,000 a year! There is a lot you can do to drive down this cost. Simple steps like changing air filters regularly, properly using a programmable thermostat, and having your heating and cooling equipment maintained annually by a licensed contractor can save energy and increase comfort, while helping to protect the environment. Depending on where you live, you can cut your annual energy bill by more than \$200 by replacing your old heating and cooling equipment with ENERGY STAR-qualified equipment.

4. Seal and insulate your home

Reduce air leaks and stop drafts by using caulk, weather stripping, and insulation to seal your home's envelope and add more insulation to your attic to block out heat and cold. A knowledgeable homeowner or skilled contractor can save up to 20% on heating and cooling costs and significantly enhance home comfort with comprehensive sealing and insulating measures.

5. Reduce, reuse, recycle

Reducing, reusing, and recycling in your home helps conserve energy and reduces pollution and greenhouse gas emissions from resource extraction, manufacturing, and disposal. If there is a recycling program in your community, recycle your newspapers, beverage containers, paper, and other goods. Also, composting your food and yard waste reduces the amount of garbage that you send to landfills and reduces greenhouse gas emissions. Visit EPA's Individual WASTE Reduction Model (iWARM) to learn about the energy benefits of recycling, rather than landfilling, common waste products.

6. Use water efficiently

It takes lots of energy to pump, treat, and heat water, so saving water reduces greenhouse gas emissions. Saving water around the home is simple. Three percent of the nation's energy is used to pump and treat water so conserving water conserves energy that reduces greenhouse gas pollution. Reduce the amount of waste you generate and the water you consume whenever possible. Pursue simple water-saving actions such as not letting the water run while shaving or brushing teeth and save money while conserving water by using products with the WaterSense label. Did you know a leaky toilet can waste 200 gallons of water per day? Repair all toilet and faucet leaks right away. Running your dishwasher only with a full load can save 100 pounds of carbon dioxide and \$40 per year. Be smart when irrigating your lawn or landscape. Only water

when needed, and do it during the coolest part of the day; early morning is best. See [EPA's WaterSense](#) site for more water saving tips.

7. Be green in your yard

Composting your food and yard waste reduces the amount of garbage that you send to landfills and reduces greenhouse gas emissions. EPA's GreenScapes program provides tips on how to improve your lawn or garden while also helping the environment.

8. Purchase green power

Power your home by purchasing green power. Green power is environmentally friendly electricity that is generated from renewable energy sources such as wind and the sun. There are two ways to use green power: You can buy green power, or you can modify your house to generate your own green power. [Buying green power is easy](#). It offers a number of environmental and economic benefits over conventional electricity, including lower greenhouse gas emissions, and it helps increase clean energy supply. There are a number of steps you can take to create a [greener home](#), including [installing solar panels](#) and researching incentives for renewable energy in your state.

9. Calculate your household's carbon footprint

Use EPA's [Household Carbon Footprint Calculator](#), which is found at <https://www3.epa.gov/carbon-footprint-calculator/>, to estimate your household greenhouse gas emissions resulting from energy use, transportation, and waste disposal. This tool helps you understand where your emissions come from and identify ways to reduce them.

10. Spread the word

Tell family and friends that energy efficiency is good for their homes and good for the environment because it lowers greenhouse gas emissions and air pollution. Tell five people and together we can help our homes help us all.

Remember: Tune in for Part 2 on cutting carbon at the office in the October newsletter.

Editor's note:

According to a broad consensus of climate scientists, the world must reduce greenhouse gas emissions drastically by 2050 to avert dangerous climate change--by 80% in the developed world. For cities, this will require a massive reduction in greenhouse gas emissions from new and existing buildings. A recent report from the [Urban Green Council](#) titled "90 by 50" examined how New York City could reduce its carbon footprint by 90% by 2050 using widely available technology. Using a virtual model of New York City, researchers found that getting cars off the road or stricter restrictions on factories would not yield the most savings for New York City, where the city's buildings account for 75% of greenhouse gas emissions. Rather, the city needs to make its buildings more energy efficient. While Ohio is not New York City, researchers' suggestions are just simple construction work. Their report suggested ways that building owners could reduce their carbon footprint:

1. Make the building tight by caulking, weather stripping and sealing all leaks.
2. Keep the air fresh with an artificial ventilation system.
3. Use triple-glazed windows
4. Add some insulation, which is improving all the time.
5. Add some shade.

6. Use mini-split heat pumps, which can heat or cool a building year round with electricity as the only energy source. These heat pumps are tremendously popular in Japan but have been available in the United States for only the past decade or so. They work similar to an air-conditioning unit--pushing hot air out of the building in the summer and cold air out in the winter (of course, installing one of these heat pumps means using more electricity). The report assumes that the heat pump is operating in a house where steps 1 through 5 have been completed (which result in a greatly decreased demand for energy) and anticipates that the city's power supply will increasingly move toward renewables and away from coal over the next four decades.
7. Use rooftop solar panels.

While steps 1 through 5 would significantly decrease the overall demand for energy by the city's building stock, steps 6 and 7 would transition buildings away from oil and gas for heat toward electricity (which, in the future, will come from more renewable sources) and solar power.

For a full copy of the report, which discusses other carbon-saving ideas from the waste and transit sectors, go to: <http://www.urbangreencouncil.org/content/projects/90-50>.

--Lorraine McCarty



Did You Know . . .

- U.S. recycling activity conserves significant quantities of energy. EPA estimates that our current recycling efforts saves 1.4 quadrillion BTU, equivalent to 11.3 billion gallons of gas.
- Americans saved \$20 billion in 2010 on their utility bills with the help of ENERGY STAR, and prevented the equivalent of greenhouse gas emissions from 38 million vehicles. In addition, they saved more than 240 billion kWh--about 5% of U.S. electricity demand.
- The water you save every year by purchasing a new ENERGY STAR qualified clothes washer instead of a new non-qualified model is enough to do 300 loads of laundry.
- If all states adopted the most recent commercial and residential model energy codes, by 2020 annual consumer energy bill savings would be almost \$7 billion, and the construction of 32 new 400 megawatt (MW) power plants could be avoided.



--Quoted from U.S. Environmental Protection Agency statistics

Environmental Platforms of Democrats and Republicans Summarized

A KEC member has compiled a list of the environmental platforms of the Democratic Party and the Republican Party. To view the full platform for the Democrats, go to <https://www.demconvention.com/platform/>. To view the full platform for the Republicans, go to <https://www.gop.com/the-2016-republican-party-platform/>.

--Lorraine McCarty

→ Second Annual Edith Chase Symposium: 'Before the Well Runs Dry . . . An Examination of Groundwater Resources'

The Earth could easily be called "Water World." The abundance of water exceeds that of any other planet yet discovered. The problem is most of the Earth's water is saltwater; only 3% percent of the Earth's water is freshwater. Of that 3%, 70% is frozen in ice caps and glaciers. Nearly all of the liquid, 30% is in the ground as groundwater. For that reason, most people in the world, including the people of Kent, depend groundwater as their water source.

Because freshwater is the ultimate limiting resource for human habitation, it makes sense to ask how much of it is available where we to live and raise our families for the long term. But quantity is not the consideration we need to give to water sources. We also need to consider water availability and how reliable that availability is. If a amount of water exits but is difficult to obtain or is abundant for only the year, then that water is not a good and sustainable source. Even if a given water source is rated as good, we need to consider the threats to its quantity, quality and sustainable availability.

Clearly, the topic of groundwater can easily become very technical and beyond the reach of the interested layman, even though it is the most important environmental issue confronting laymen and experts alike. Fortunately, Dr. Julie Weatherington-Rice, the 2016 Edith Chase Symposium speaker, led the audience through the technicalities of groundwater characteristics and potential threats. Weatherington-Rice is a well-recognized authority on groundwater who has been a field geologist for more than 40 years and has served as a consultant to various Ohio agencies. She was awarded the Howard M. Metzenbaum Scientific Leadership Award in 2003 and the Ohio Environmental Council's Environmental Watchdog Lifetime Achievement Award in 2013. And perhaps most appropriately, she is a longtime friend of Edith Chase. Below are summaries of Weatherington-Rice's key points.

Groundwater 101

Ohio is a state that is both rich and poor in groundwater resources. Whether you are groundwater rich or poor depends on the geology far beneath your feet. Groundwater is stored in the ground in two ways. It can be **consolidated** as part of the glacial bedrock (embedded in sedimentary rock). While such water may be abundant, it can be difficult to retrieve and will flow slowly. Groundwater also can be found in **unconsolidated** sand and gravel deposits that fill buried streambeds and former beach fronts. Water from these areas can flow rapidly and serve as a good public source of water. How can you tell which sorts of rocks and gravel pits are in a given location? You can do so by referring to an abundance of maps provided by the Ohio Department of Natural Resources (ODNR). For a variety of aquifer maps, go to:

<http://water.ohiodnr.gov/maps/statewide-aquifer-maps>. For unconsolidated aquifer maps, go to:

http://water.ohiodnr.gov/portals/soilwater/pdf/maps/samp/4GWMaps_Unconsolidated_Poster.pdf



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Iris Meltzer, left, Julie Weatherington-Rice, center, and Chris Mallin gather at the Second Annual Edith Chase Symposium

Pollution Potential of Groundwater

Because groundwater is so frequently used as a drinking water source for towns and cities in Ohio, each public water supplier is required by law to have a wellhead protection plan. Most counties in Ohio, including Portage County, have a groundwater pollution-potential document that can be accessed from the ODNR website. For example, Portage County's document can be found at http://water.ohiodnr.gov/portals/soilwater/pdf/maps/groundwater%20pollution/Preprinted/Portage_PP_Report_wMap.pdf. These reports present findings based on the use of a groundwater pollution model called DRASTIC, which models the rate of flux of pollutants that would move at the rate the water moves. The DRASTIC model evaluates an area's relative susceptibility to a contaminant that has the mobility of water. In a second use of this model, the pesticide DRASTIC model, evaluates areas with respect to groundwater contamination vulnerability to pesticides. These models provide a delineation of the zones around the wellhead that would flow within one year and within five years to the wellhead. The wellhead protection plans are monitored and enforced by the Ohio EPA. Ohio's source water assessment and protection plans can be found on the OEPA website at <http://www.epa.state.oh.us/ddagw/swap.aspx>.

Want help understanding all of this? Help is available through the Ohio EPA's Source Water Environmental Education Teams (SWEET). SWEET members work county by county to provide resources for understanding groundwater. SWEET members attend public meetings or other events to educate the community about the importance of protecting its drinking water supply. Schools can invite SWEET representatives to their classrooms to demonstrate groundwater flow, contaminant transport, and source-water protection by using the groundwater flow model. Public water systems can use SWEET resources when developing and implementing their community's drinking water source protection plan. Since October 2005, SWEET has provided outreach to more than 40,000 Ohioans at almost 400 events, such as city meetings, festivals, county fairs, and schools. For more information on Ohio's SWEETs, see the OEPA webpage: <http://epa.ohio.gov/ddagw/sweet.aspx#165754924-ground-water-model>.

Fracking as a Source of Pollution Potential

Weatherington-Rice ended her talk with some case histories of spills that could have greatly affected the quality of groundwater sources. Although a great deal of concern has centered around the potential effects of the cocktail mixes used in fracking fluids, she pointed out that the main problem with fracking is the brine wastes that are pumped out to be deposited in deep injection wells. She cited an accident involving a truck that overturned near Barnesville, spilling its brine wastes adjacent to a public groundwater source. "Salt can kill a well field," she stated. Fortunately, this spill was contained before it could contaminate the well field.

Her points were well made. In just over an hour, Weatherington-Rice informed us of the complexities of groundwater abundance and availability. She pointed us to web-based resources for further reference. She provided a great deal of information on the means by which public groundwater sources are managed, regulated and protected. Finally, she assured us that groundwater aquifers are vulnerable to overuse and pollution. Her talk gave us the means to become better informed and the impetus to remain vigilant.

--Bob Heath



The Significance of Seed Bombs

The History of Seed Bombs

Seed bombs, seed balls, ballistic seeds, seed packs, earth balls--have nearly as many names as they have purposes and histories. The simple act of putting seeds into a protective casing is not a new idea and not an idea unique to a single group. It is instead a fairly common theme in the history of farming.

Today, we often focus on seed balls as a great tool for guerrilla gardening or seeding hard-to-reach areas, but seed balls have many other benefits, which explain their near ubiquity across cultures--from China and Japan, to Native North Americans, to ancient Egypt.



Modern-Day Seed Bombs

The modern history of seed balls begins with Japanese microbiologist and farmer Masanobu Fukuoka, who wrote the quintessential book on seed balls in 1957 titled *The One-Straw Revolution*. New York City activists known as the Green Guerrillas introduced seed balls as a way to beautify urban landscapes as urban decay took its toll on predominantly subaltern and low-income communities. Even more recently, organizations across the globe are using seed balls in ecological restoration projects in areas such as Thailand, Kenya, India and Tanzania.

Seed Bombs Explained

Seed bombs are, first and foremost, a way to protect seeds. The clay exterior prevents rodents from eating the balls, the drying process protects them from rot when exposed to sufficient rain, the absorbent compost helps to provide the right amount of water for germination for most seeds (some plant species, especially water plants, will require more water or soaking and should not be used in seed bombs), and the compost provides nutrients for germination and early root establishment. Seed bombs also help to protect the soil ecosystem by encouraging no-till agriculture and preventing disruption of soil microbial communities.

Seed Bomb Tips

Some things to remember are seed choices, ball design choice, storage, and planting. Seed choice can be as simple or as complex as you want. A simple weekend project to beautify the neighborhood might benefit from the choice of mixed native perennial flowers, while trying to do your own garden landscaping may push you to include more annuals or do single species bombs. Vegetable gardening tends to lend itself to single-species seed bombs also (although the Three Sisters gardens--corn, beans and squash grown together--are an area where mixed seed bombs do very well). In mixed seed bombs, try to avoid plants that have allelopathic chemical defenses (that is, the inhibition of one plant or organism by another due to the release of substances into the environment that act as germination or growth inhibitors), which can make the soil inhospitable to other plants. Bomb type also is important, and most of the time a simple mixed bomb will work best. The exception is if you are looking to make seed bombs for use in the next planting season; the protective outer coat of clay helps these bombs last longer, though extra attention is required to make sure the bombs are thoroughly dried before storing in a dark, cool environment. In general, the longer you plan to store the seed bombs, the more time and care you should take in preparing them. Combining seed saving and seed-bomb making in the fall can be a great way to reduce the costs of gardening.

Edible Kent had a very interesting demonstration of making seed bombs at the Haymaker Farmers' Market on July 16! A simple Google search turns up plenty of instructions. You also can learn about seed saving with Edible Kent later this summer. Check their website at <http://www.ediblekent.com/blog/the-significance-of-seed-bombs> for more details.

---Lisa Regula Meyer



Kent Heritage Festival 2016

The KEC booth at the Kent Heritage Festival this year highlighted the acidification of the oceans due to carbon dioxide from burning fossil fuels. To demonstrate this effect, we asked children if they wanted to dig for sea shells in our bucket of sand. They were enthusiastic about the task, and took the shells home. A poster explaining the problems of ocean acidification was available for the parents and their children to see. A poster on the importance of groundwater also was available for review for those interested, along with other literature on environmental issues. KEC also raffled a basket of environmental books, some seeds, a pail and a watering can for children. The winner was Des Bigelow.



Young boy digs for sea shells in the sand



KEC booth draws visitors

--Lorraine McCarty



Board of Elections Turns Down Portage County Charter Issue

The Portage County Charter issue, which KEC supported with a letter to the editor in both the *Record-Courier* and the *Akron Beacon Journal*, was voted down by the county board of elections, saying it was invalid and should not go forward because it "does not meet the requirements of law as it fails to make provisions for a County Executive as required by O.R.C 302.02."

The Portage Community Rights group filed a protest, which has gone to Ohio Secretary of State John Husted for review. The group calls the board's decision a "clear error as a matter of law" because they seek to create a charter government under Ohio Constitution Article X, which has no requirement for a county executive. Gwen Fischer, coordinator of the Portage Community Rights group, says the group is prepared to challenge Husted's decision if he sides with the county board's action. If the Ohio Supreme Court cannot hear this matter in time to get the issue on the ballot for this year's November general election, the group would have to begin again in time for the next general election--which they are ready to do.



--Lorraine McCarty



Save the Date

Last Day to Register to Vote

Date: Tuesday, October 11



This is the last day to register to vote in this year's general election on November 8. If you are not registered, please register today. Even if you are registered, it would be wise to check on the [Portage County Board of Elections website](http://www.voterfind.com/portageoh/vtrlookup.aspx#results) at <http://www.voterfind.com/portageoh/vtrlookup.aspx#results> because many voters were deleted from the files. Even if the courts rule against the purging of "inactive" voters, the deleted names cannot be restored. Registering is easy, but it must be done in person at a public library or at the Portage County Board of Elections in Ravenna. Those who live in another county can check the [state voter lookup website](http://voterlookup.sos.state.oh.us/voterlookup.aspx) at <http://voterlookup.sos.state.oh.us/voterlookup.aspx>.



The Environment in the News



Signs of 'Healing' Ozone Layer over Antarctic: Study

AFP.Yahoo News - June 30, 2016

A study has found that the ozone hole over the Antarctic has shrunk by 1.5 million square miles (about the size of India) since 2000, signaling good news for the environment, coming decades after an international accord in Montreal in 1987 to phase out the use of chlorofluorocarbons (CFCs). A volcanic eruption in Chile in 2015 slightly delayed the recovery of the ozone, which is sensitive to chlorine, temperature and sunlight. But observations (from satellites, ground based instruments and weather balloons) and computer models agree that the healing has begun.

6 Workers Chaged in Flint Water Crisis

Akron Beacon Journal - July 30, 2016

Six current or former state employees were charged with misconduct and other crimes, bringing to nine the number of public officials facing charges over the lead contamination of drinking water in Flint, Michigan. A total of 18 charges were recently brought against three employees from the Department of Environmental Quality and three from the Department of Health and Human Services. Charges include misconduct in office, willful neglect of duty and various conspiracy counts for attempting to bury, cover up, downplay, or hide information in an attempt to say that there was nothing wrong with Flint water and that it was perfectly safe to use. Flint utilities administrator Mike Glasgow struck a deal with prosecutors in May--cooperation for a reduced sentence. Two state Department of Environmental Quality officials also were charged with misconduct, conspiracy, tampering with test results and misdemeanor violations of the clean water law and await preliminary examination. In June, the attorney general also filed a lawsuit against two water engineering companies.

Water Protections Long Overdue

Akron Beacon Journal - June 4, 2016 and Record-Courier - June 5, 2016

The Ohio General Assembly acted speedily to unanimously adopt legislation for clear and necessary standards into state law for tighter testing requirements and prompt community notification of lead or other impurities are found in drinking water. New timelines for public notice when dangerous levels are identified in drinking water allow only two days to notify residents and other users if lead and copper levels rise above the threshold (down from 30 days to provide notice). A more in-depth education campaign would have to be launched within 30 days (down from 60 days.) If local action does not occur within the new timelines, the state would be required to step in to provide notice, and there are potential penalties for noncompliant systems.

Study Links Fracking, Asthma Care

Akron Beacon Journal - July 19, 2016 and Record-Courier - July 18, 2016

Treatment for asthma is as much as four times more common in both children and adults living closer to fracking wells or areas with bigger active wells than those people living farther away. But no direct causal link was proved, nor were researchers able to compare the results to traditional drilling methods or other industrial activities. Previous research has found heavy air pollution in areas with a booming oil and gas industry. The researchers used the more than 6,200 fracking wells that were drilled in Pennsylvania between 2005 and 2012 for the study and found that health records showed 36,000 asthma patients were treated in a 40-county area surrounding the wells.

U.S. Agency Finds Jet Engine Exhaust Harmful to Health

Akron Beacon Journal - July 15, 2016

Based on studies that show exhaust from airliners endangers human health and adds to climate change, the U.S. Environmental Protection Agency will use its authority under the Clean Air Act to propose limits on aircraft emissions and fuel-efficiency standards. U.S.-owned airliners account for almost one-third of all aircraft worldwide. The EPA findings do not apply to small piston-engine planes or to military aircraft.

Solar-Powered Flight Arrives in NYC

Akron Beacon Journal - June 12, 2016

This solar-powered plane began its globe-circling voyage more than a year ago on a mission to promote a world free from reliance on fossil fuels. The Solar Impulse 2's wings stretch wider than those of a Boeing 747 and are equipped with 17,000 solar cells that power propellers and charge batteries. The plane runs on stored energy at night to demonstrate that just the energy of the sun can give enough power to fly day or night. Weather conditions will dictate when the plane will leave for its flight over the Atlantic and where it will land.

A Moment in the Sun for Solar Power

Akron Beacon Journal - July 30, 2016

International teams of college students began a race yesterday in the Cuyahoga Valley National Park. The teams designed and built solar-powered cars that will drive for eight days and 1,975 miles and end in Hot Springs, South Dakota, in this American Solar Challenge competition. The vehicles are bare bones, built for efficiency and not for comfort. The car batteries are similar to those that power a Tesla, and Bridgestone America supplied experimental tires designed for low-rolling resistance that can last from 500 to 1,000 miles. One team member explained that it may take a minute or longer to get the car up to 80 miles per hour. But once there, it can stay there.

Magic Mile and Freedom Trail Projects Receive Gold Medals

Akron Beacon Journal - June 3, 2016

These summit county trails were winners in the Greater Cleveland Trails and Greenways Conference awards. The Freedom Trail in Summit Metro Parks (starting just outside of Kent's borders on Middlebury Road) and going 6 ½ miles to Eastwood Avenue is being extended another 2 miles to the University of Akron. The final leg of the trail will connect it to the Towpath Trail in downtown Akron.

Tallmadge, Kent to Secure Bike Lanes on Middlebury Road

Record-Courier - June 10, 2016

Tallmadge City Council recently voted to authorize working with Summit County Metro Parks and the city of Kent to make improvements on the connection between the Freedom Trail and the Kent Hike and Bike Trail by adding street bike lanes. Council called the effort a necessity because of increased bicycle traffic. Both motorists and bicyclists have asked for improvements of safety on Middlebury Road.

Comments Sought on Bike and Hike Projects

Record-Courier - June 18, 2016

Kent received federal funds to connect the Lester Lefton Esplanade and the Portage Hike and Bike Trail and to improve parking at John Brown Tannery Park. (*Editor's Note: the comment period passed before this edition of our newsletter, but project plans may be viewed at the city engineer's office in the Service Administration Building, 930 Overholt Road in Kent.*)

New Surface Mines Won't Be Permitted in Streetsboro

Record-Courier - July 3, 2016

Ohio majority and minority leaders say that will not increase taxes on oil and gas produced by fracking while oil prices are low and the industry is facing a downturn but that they should look at raising the severance tax again (which the governor favors) as soon as prices go up.

Announced

Time- July 4, 2016

The National Oceanic and Atmospheric Administration announced that the world's coral reefs are experiencing the "most widespread, largest bleaching event ever." This has been triggered by rising ocean temperatures and has killed one-third of coral in some places since 2014.

Announced

Time - June 27, 2016

The first documented extinction of a mammal owing to man-made climate changes was announced by Australian scientists. They say that rising sea levels "almost certainly" wiped out the Great Barrier Reef's only endemic mammal species, a rodent known as Bramble Cay melomys.

Tesla Buys Solar Panel Maker

Akron Beacon Journal - June 22, 2016

Tesla Motors is offering to buy solar panel maker SolarCity in an attempt to create a one-stop shop for cleaner energy. The deal must still be approved by shareholders, a process that may be complicated because Tesla CEO Elon Musk is chairman and the largest individual shareholder of Solar City.

Give Nuclear Power Plants Some Respect

Akron Beacon Journal, from the Philadelphia Inquirer - June 18, 2016

Nuclear power has been used with extraordinary results to boost productivity and improve the quality of life in America. But despite this, the number of nuclear power plants has been shrinking because of competition from cheap natural gas and subsidized wind and solar. Since 2012, 11 plants either have been shuttered or will be retired in the next few years. These closures probably benefit shale-gas production, but the country will lose the electrical reliability that nuclear plants have provided, and air pollution and greenhouse gas emissions from fossil fuels will increase. These effects compromise public health and electric reliability. Three Mile Island in Pennsylvania recently failed to secure electricity contracts for 2019-2020 because the grid operator chose lower-cost electricity produced by gas plants and renewable energy sources as required under state laws. These decisions were made even though the plant had a 99.3% capacity factor, among the highest in the world, with the capacity factor of the other providers being much lower. In the marketplace, nuclear power is undervalued as a carbon-free source of electricity. Without nuclear power, the United States cannot meet the Environmental Protection Agency rule of cutting carbon emissions 30% below 2005 levels by 2030. The article urged Pennsylvania legislator to provide financial credit for helping meet carbon-reduction targets.

FirstEnergy Closing Parts of Coal Plants

Akron Beacon Journal - July 23, 2016

FirstEnergy will be either selling or shutting down its 136-megawatt Bay Shore plant near Toledo and will close a significant portion (720 megawatts out of 2,210 megawatts) of its Sammis plant along the Ohio River--its largest coal-fired electric generator. The company is still undecided on what to do with the small oil-peaking unit (only 16 megawatts) at Sammis. The units will continue to meet demand until 2020.

FirstEnergy said that the coal units to be closed are uneconomical in current economic conditions. The Sierra Club was pleased with the announcement, saying it makes the total of 10,093 megawatts produced from coal

that Ohio has announced to retire since 2010 more than any other state and 9.5% of the amount announced to retire nationally. The total of this announcement added to the Sierra Club's December 2015 settlement with American Electric Power of 1.5 gigawatts of coal generation retirement that will keep 10 million metric tons of carbon dioxide and 41 million pounds of sulfur dioxide emitted yearly by these plants out of the air.

San Francisco Toasts Farewell to Foam Cups

Akron Beacon Journal - July 10, 2016

In addition to banning Styrofoam beverage and food containers in 2006, residents will no longer be able to use polystyrene foam cups or coolers, kiddie-pool toys or packing peanuts. Environmentalists are cheering this move as the most comprehensive ban by a large U.S. jurisdiction because this lightweight plastic is very slow to decompose and pollutes waterways, harming marine life and birds. Eight percent of microscopic particles found in San Francisco Bay have been identified as foam--seven times greater than the pollution in Lake Erie. Some cities have had such bans overturned, with the courts saying the products could be recycled.

Obama Touts Truth of National Parks, Climate Change

Record-Courier - June 19, 2016

According to President Barack Obama, climate change is already impacting America's national parks. During a president's first visit to Yosemite National Park since President John F. Kennedy's visit in 1962, Obama called for increased action to preserve the parks for future generations. He also pointed to environmental gains made while he has been in office, including protection of 265 million acres of public lands and waters, more than any previous administration, as well as new monuments, including one for labor leader Cesar Chaves in Kern County, California.

Morgan Park to Open in July

Akron Beacon Journal - June 25, 2016

The Portage Park District officially opens two trails that cover one mile in the 504-acre Morgan Park on July 10. This is the first phase of the passive recreational development of the park. Located in at 8829 Nicodemus Road in Shalersville Township, the park was acquired in 2009 with help from the Ohio Environmental Protection Agency, the Northeast Ohio Regional Sewer District and the Western Reserve Land Conservancy. Until now it was open only for limited astronomy programs.

Nexus Pipeline Report Released

Akron Beacon Journal - July 9, 2016

U.S. regulators released a draft review yesterday of the proposed natural gas pipeline's environmental impact. Some adverse impacts to the environment would be experienced from building and operating the pipeline, but the Federal Energy Regulatory Commission (FERC) concluded that those impacts could be "reduced to less-than-significant levels by taking certain steps." Spectra Energy and DTE Energy plan to run a 36-inch diameter Nexus Gas Transmission project to carry up to 1.5 billion cubic feet of natural gas a day from Utica and Marcellus shale to markets in Ohio, Michigan and Canada. In Ohio, the proposed route would go through Washington, Nimishillen, Marlboro and Lake townships and the city of Green. Green has proposed moving the pipeline to southern Stark County and the FERC is asking those landowners to file comments about the southern route. The deadline for comments is August 29. The FERC docket number is CP16-22-000.

Entrepreneur Turns Trash into Treasure

Akron Beacon Journal - June 5, 2016

Food waste composting is making its way to more than 200 communities. This article focused on Melisa Tashjan, who carved out a niche helping turn smelly food scraps into a dark, rich medium to grow more fruits and vegetables. Starting with one truck and a handful of customers, she now has 55 clients and two

larger garbage trucks, picking up 115,000 pounds of food waste and other organic materials in April of this year. According to an EPA report, more than 200 communities offered curbside food collection in 2013. Rust Belt Riders Composting in Cleveland started about the same time as Tashjian's operation and now has 45 clients, adding about two a week.

Great Lakes States Approve Thirsty Wisconsin City's Water Plea

Record-Courier - June 22, 2016

Waukesha, Wisconsin, a suburban Milwaukee city of 22,000 residents, won its hard-fought battle to draw drinking water from Lake Michigan. This is the first test of the 2008 Great Lakes Compact to safeguard the Great Lakes freshwater supply. Because Waukesha is 17 miles from the lake but just outside the Great Lakes watershed, the request required special permission under the compact.

Beijing Is Sinking 4 Inches Every Year

The Plain Dealer - June 29, 2016

Overconsumption of groundwater is causing the land under Beijing to sink by as much as four inches per year. The rate threatens "the safety of the public and urban infrastructure" according to a study done by experts from China, Spain and Germany and published in the journal *Remote Sensing*. Uneven sinking could damage trains, buildings and other structures. Beijing's growing central business district is sinking fastest, at more than four inches per year.

Track Failure Suspected

Akron Beacon Journal - June 6, 2016 and Record-Courier - June 5 and 6, 2016

Track failure is cited as the likely cause for an Oregon train derailment, according to the United Pacific Railroad. The derailment caused 16 of the train's 96 tank cars to derail and catch fire, sending thick, black smoke into the air and prompting the evacuation of about 100 people living nearby and damaging the Mosier wastewater treatment plant and sewer system. The cars carried volatile crude from the Bakken region, which has a higher gas content and vapor pressure than other types of oil.

Canada Limits Crude Transport

Akron Beacon Journal - July 26, 2016

Canada has outlawed the older DOT-III tanker cars and a version jacketed with an extra layer of metal to be taken out of service by November 1. The new directives are for crude oil only. Tankers originating from the United States that are not up to the new code will not be allowed to cross the border.

U.S. to Speed Up Drill Permits

Akron Beacon Journal - July 29, 2016

U.S. officials plan to speed up permitting for oil and gas drilling on federal and Indian lands to reduce delays. Applications for the end of the year were projected to be down 40% from their historical average because of ongoing price slumps, which have cut down on domestic energy exploration. Budgets in major energy-producing states--especially Wyoming, New Mexico, Colorado, Alaska, North Dakota and Montana--have felt the decreased revenue. The U.S. Bureau of Land Management says that from now on, they will accept only online applications to streamline the process and reduce costs for companies.

Fracking Ruling Criticized

Akron Beacon Journal - June 23, 2016

The Obama administration is upset that a Wyoming judge ruled that federal regulators lack the authority to set rules for hydraulic fracturing. Interior Secretary Sally Jewell says this is another setback for modernizing fracking requirements aimed at ensuring adequate well control, preventing groundwater contamination and increasing transparency about the materials used in fracking.

Ravenna Oil, Gas Firm Sues Munroe Falls

Record-Courier - July 11, 2016

Beck Energy filed a counterclaim against Munroe Falls, seeking compensation in the cases the city lost against the company. Beck is asking an award of more than \$25,000 plus costs and attorney fees for each of four counts against the city. The Ohio Department of Natural Resources gave a new drilling permit to Beck in June, and the company intends to begin drilling. Munroe Falls Law Director Thomas Kostoff says the city is allowed to file a reply, which he intends to do. Some believe it is a waste of money to pursue the matter because it has already been decided by the Ohio Supreme Court.

Will Algae Strategy Work?

Record-Courier - June 6, 2016

Ohio's strategy to slow down toxic algae in Lake Erie is centered on new regulations and programs put in place this year--including stopping farmers from spreading manure on frozen fields and encouraging them to use the right amount of fertilizer. But the programs rely a lot on voluntary compliance and lack a sense of urgency according to environmental groups. Will it be enough? The success won't be known for a couple of years. Ohio, Michigan and the Canadian province of Ontario all pledged to reduce phosphorous runoff by 40% in the next 10 years.

--Summarized by Lorraine McCarty



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