



## Waukesha County Environmental Action League Protecting Waukesha County's Natural Resources since 1978 E-Newsletter April 2022

**“If you really think that the environment is less important than the economy,  
try holding your breath while you count your money.” Guy McPherson**

### The theme of Earth Day 2022: INVEST Rose Reinders

Investment is the dedication of an asset to attain an increase in value over a period of time. Investment requires a sacrifice of some present asset, such as time, money, or effort. In finance, the purpose of investing is to generate a return from the invested asset. Many times we think of investing from a financial point of view, but as you can see in the above definition, the investment could be a sacrifice such as time and effort, and it would require time and effort on the part of the investor to reap growth and assets.

We are asked, especially this year, to invest in our Planet. It may require a sacrifice and it will not happen immediately, but with courage and persistence the investments we make for the planet will generate returns for all of us. The actions that should be taken will involve businesses,

governments, and social life. These are not just personal responsibilities, but the actions now would include many changes to government decisions, corporate actions, and, of course, we as consumers will be working to make changes in all our lives. Governments and corporations will base their business on green, sustainable products which will bring them more profits and a better economy.

This year we are asked to change it all---the business climate, the political climate, and how we take action on climate. Now is the time for the courage to preserve and protect ourselves and our Planet. It is the time to work harder and smarter for a greener economy.

Find some action tips on this link:

[Earth Day Tips | Earth Day Network](#)

### Ways to invest in our planet

1. Calculate your food print.
2. Advocate for climate education.
3. Encourage your university to take climate change action.
4. Pick up trash---when you walk or even when you run.
5. Calculate your carbon footprint.
6. Organize a community cleanup.
7. Learn how to combat plastic pollution.
8. Switch to reusable bags.
9. Compost.
10. Go pesticide free.
11. Support organic ingredients.
12. Take the clean energy quiz.  
(Found on the link)
13. Use a reusable water bottle.
14. Turn off lights when not in use.

Push for plant-based options



Go pesticide-free



Explore the Earthday 2022  
Action Toolkit



Meal Prep



Tell your elected leaders to ban  
single use plastic



## EARTH DAY 2022

## An Earth Day Message

Sources: NRDC, The Guardian. Laurie Longtine

Our planet is choking on human-generated waste. Wildlife, already stressed from climate change, habitat loss, and increasing interactions with humans that rarely end well for animals are suffering from plastic poisoning as plastics are mistaken for food. Floating islands of trash in the oceans can be seen from space. Whales are washing up on beaches with bellies full of plastic. Plastics are found in 90% of seabirds and 100% of turtles. Plastics are choking our waterways, piling up on shores and beaches.

Microplastics have recently been found in the human bloodstream and lungs.

They are found in soil and in our food. We are poisoning ourselves and all life on this planet.

Zero Waste is a daunting and nearly impossible goal. To achieve it will require the focused attention of the entire planet: third- and first- world countries, capitalists, communists and every variation in between, people living in thatched huts and castles, one-room adobe houses and ranch houses, trailers and tract homes, on the streets and in McMansions—all of us, everywhere, all of the time while simultaneously dealing with climate change, political conflict and pandemic disease.

Of course, plastics are not the only material in landfills.

We cannot recycle our way out of it. Manufacturers, distributors, and restaurants and bars must take an active role in keeping these materials out of the waste stream.

Governments at all levels must take leadership of the problem, and not be swayed by the lure of “dump dollars” from landfill operators and waste haulers.

To make even modest gains will require radical action and thought, a paradigm shift.

Our survival as a species and a planet depends upon it. Our health depends on it.

We must try and must make an immediate start. Please commit to taking an action today.

Visit our website at [www.WEAL.org](http://www.WEAL.org) or Facebook page for ideas that can help heal our precious planet. Please join Zero Waste Waukesha County to give your valuable input and guide the discussion and action.






## WEAL sponsors mussel monitoring project

Nancy Gloe

Perhaps you'll remember the ongoing WEAL mussel monitoring project (see WEAL spring and fall 2021 newsletters) in which we are working to protect our county's rare freshwater mussels from harm due to instream bridge construction projects.

The results of our 2021 surveys are in! They are below:

-  1 survey on Menomonee River-no rare species found
-  1 survey on Oconomowoc River-no rare species found\*
-  2 surveys on Bark River-rare species found

*\*There are still questions about how much “instream” work will occur on this project. Also, we have reason to believe that rare mussels may occur upstream of the construction site survey point, so we expect to be doing additional monitoring in 2022.*

We submitted all the data to DNR earlier this year. As a result, DNR will be relocating rare mussels prior to the upcoming bridge reconstruction projects on the Bark River. (scheduled for 2023) Also, there will be more rigorous erosion controls put in place on these projects to protect water quality and the species that live there. Again, this is an ongoing project. Check back for updates on how your support of WEAL is helping us to preserve rare species in our county.

**Examples of mussels WEAL found in 2021 river surveys--- some rare, some not.**



## Important Updates on the Orchard Ridge Eastern Expansion, Southern Unit (Boundary Road Superfund site)

Charlene Lemoine

### Plan of Operation (POO)

The Wisconsin DNR received a Plan of Operation (POO) for the Eastern Expansion, Southern Unit (Boundary Road Superfund site) from Waste Management of Wisconsin, Inc. (WMWI) on 2/21/2022. Under Wisconsin's landfill siting law, the DNR has 90 days to review a POO. However, the review can take much longer if the DNR requires additional information.

The DNR is not required to publicly announce or post a POO on the DNR's website. WEAL and Falls React II, a Menomonee Falls group, asked the DNR to post the POO. Since the proposed expansion has generated a great deal of public interest, the DNR has provided links to the POO. The links are posted on the WEAL website ([www.weal.org](http://www.weal.org))

Although a POO does not offer a public comment period, WEAL is reviewing the document and has discovered several sections that are lacking details on excavating, testing, and relocating waste from the Superfund site.

The 15-page letter includes 27 requirements WMWI must address and 24 areas where more information is needed

The letter states: "Based on our review, the department has determined the plan of operation is not complete since the minimum requirements of Ch. NR 514, Wis. Adm. Code and the conditions of the department's July 30, 2021, feasibility determination have not been met."

An attachment at the end of the letter entitled "Comments provided by the Hazardous Waste Program on the Boundary Road Landfill Property Redevelopment Plan (Appendix C)" offers an exchange between WMWI and the DNR's Hazardous Waste Program staff on several unresolved issues associated with the proposed exhumation of the Boundary Road Superfund site.

The 3/23/2022 Incompleteness Letter is also posted on the WEAL website.

**"Based on our review, the department has determined the plan of operation is not complete since the minimum requirements of Ch. NR 514, Wis. Adm. Code and the conditions of the department's July 30, 2021, feasibility determination have not been met."**

### Community Advisory Group (CAG)

The DNR is preparing a public notice to gauge interest in forming a Community Advisory Group for the Boundary Road Superfund site. When the public notice is issued, there will be a 30-day public comment period. If enough interest is generated from the public notice, the next step will be an informational meeting to explain what a CAG is and how it functions.

There are currently 36 Superfund sites in Wisconsin documented on EPA website. None of the sites are listed as having a CAG (Superfund Community Advisory Groups | US EPA). WEAL will post the public notice on the WEAL website. There will be only one opportunity to form a CAG and

WEAL encourages everyone who may be impacted by the proposed Superfund site plan to respond to the public notice and attend an informational meeting.

### DNR Incompleteness Determination Letter 3/23/2022

The DNR's initial review found numerous areas within the POO that require more information. On 3/23/2022, the DNR sent WMWI an Incompleteness Determination letter.

### Proposed Landfill Expansion



- Proposed Expansion Area: 76.6 acres
  - Horizontal: 59.6 acres
  - Overlay onto East Expansion: 17 acres
- Increases permitted volume by 10.6 million cubic yards
- Increase Operating Life by an estimated 7.7 years

**In the fight against climate change,  
'natural climate solutions' are key**

Excerpted from Clean WI Defender  
(Winter 2022)

Madeleine Roberts

To avoid the worst impacts of climate change, the world must make drastic changes to energy policy and in the emission of greenhouse gases. However, the latest report by the

**Soil can store about 3.2 times the amount of carbon in the atmosphere and 4 times the carbon stored in plant matter. Forests, wetlands, grasslands, and agricultural areas are ecosystems that provide the greatest opportunities for carbon storage.**

Intergovernmental Panel on Climate Change suggests that reducing emissions alone will not be enough to meet their global goals and prevent climate catastrophe. The removal and storage of carbon from the atmosphere is necessary in addition to substantially reducing greenhouse gas emissions.

Natural climate solutions provide an immediate solution—our own environment has the capability to serve as a massive carbon

sink that can be implemented now in a cost-effective manner. Natural climate solutions refer to land management, restoration, and protection practices to mitigate the large-scale effects of climate change by sequestering carbon in the environment and preventing greenhouse gas emissions by ecosystems. Natural climate solutions store carbon in both plant matter (the largest being trees) and in the soil. Soil can store about 3.2 times the amount of carbon in the atmosphere and 4 times the carbon stored in plant matter. Forests, wetlands, grasslands, and agricultural areas are ecosystems that provide the greatest opportunities for carbon storage.

There is great opportunity to implement natural climate solutions in Wisconsin with our extensive forests, wetlands, grasslands, and agricultural areas. Agricultural land makes up 30% of land area in Wisconsin. Agriculture is unique in the ability to store carbon both as plant material and in the soil

In addition to mitigating greenhouse gas emissions, practices that store carbon in agricultural soils simultaneously provide improvements to soil health and fertility, local

water quality, and resilience of agricultural land against the effects of a changing climate.

**Examples of natural climate solutions  
for WI agriculture:**

**Cover crops:** Cover crops are planted after the main harvest of cash crops with the goal of covering the bare soil, preventing erosion, increasing water retention, improving biodiversity, and returning important nutrients, like nitrogen, to the soil. In addition, cover crops have been found to have some of the greatest ability to sequester carbon among natural climate solutions, both by increasing plant material and amount of soil carbon. Research suggests that planting cover crops leads to a net storage of greenhouse gases when accounting for carbon storage and emission of N<sub>2</sub>O.

**Perennial fields:** Most cash crops are annuals, meaning that they are harvested and replanted within a year. Perennial plants are left to grow for years, which limits the need for tillage and allows for well-established root systems. Converting less productive or degraded cropland to fields of perennials would aid in the storage of carbon. The perennials either left unmanaged or sustainably harvested would allow for more mature, larger root systems to penetrate more deeply into the soil, depositing carbon deeper into the soil.

**Agroforestry:** Agroforestry involves practices to incorporate trees into fields---whether between rows of crops or around the edge of crops. These trees would protect the crops from wind, while sequestering carbon in their plant mass.

In addition to implementing natural climate solutions to store carbon in agricultural soils, protection of our state's existing carbon sinks should be a priority in Wisconsin's strategy for climate change mitigation. Natural forests, grassland areas and wetlands all serve as massive carbon sinks. Soil carbon is lost more quickly than it can be gained back, so efforts to protect existing natural ecosystems and establish improved land management practices preserves the health and productivity of these lands for future generations and stores critical carbon.

**Natural forests, grassland areas and wetlands all serve as massive carbon sinks.**



## Common Redpoll Irruption 2022

Dave Gennrich

This winter season has brought an irruption of Common Redpoll to our bird feeders in Southeastern Wisconsin since mid-January. I am sure that many of our bird watching friends



have noticed a large influx of Common Redpoll at their feeders. The Redpoll is the same size as a Goldfinch or Pine Siskin and can be identified by a distinctive red cap at the top of its head

and black under the throat. A sighting of Redpoll in our area is certainly not rare, but uncommon to say the least. Many winters we will not see any at all. They are more apt to show up in higher numbers and at more sites some years than others. According to the Cornell Laboratory of Ornithology State Summaries, they started showing up at more FeederWatch sites in Wisconsin in January and by the end of the month the Redpoll were reported at 38% of the sites, although they were only reported in small numbers for the most part. Last year there were only 12% of the sites that reported Redpoll in early February. The Wisconsin-Illinois border is the southern edge of their winter range.

We are members of the Cornell Laboratory of Ornithology and participate in the FeederWatch Program where we count the number of bird species that appear at our feeders as well as the number of each species that we can see at one time. Typically, we will count 10-13 species of birds during the winter with most species having 1-20 individuals at a time, maybe 40 Goldfinches.

This winter we have been having 120-200+ individual Redpoll at a time. It was necessary to take a photo of the birds on the ground, enlarge and print the photo so that we could count the individuals. The Milwaukee Journal Sentinel had an article in early February about the influx of Redpoll in SE Wisconsin and mentioned that some people were seeing 25 or so individuals at a time. What great joy to see that many birds

swooping in, jockeying for food or space on the feeders and aggressively fighting to keep the best spots during the semi-isolation of the Corona-19 pandemic. We hope that you were able to attract some of the Redpoll to your feeder this winter.

## Research author shining star of environmental movement

Nancy Gloe

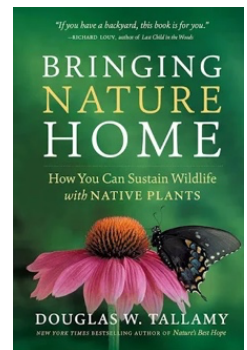
If you care about the natural world and you haven't heard about best-selling author Douglas W. Tallamy, it's about time you did.

Doug Tallamy is a professor in the Department of Entomology and Wildlife Ecology at the University of Delaware. His research and teachings have made him a shining star of the environmental movement. His simple yet profound message: Plant native plants to help preserve the diversity of life on earth and to prevent the next major extinction.

Here is a quick summary of the four books Prof. Tallamy has published to date.

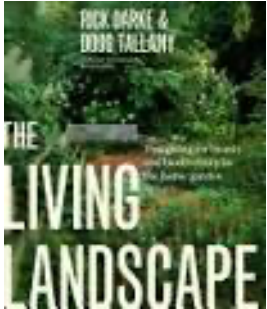
- In *Bringing Nature Home*, Prof. Tallamy helps us to understand ecosystems. Briefly, diversity is essential to ecosystem stability and functioning. It also helps determine ecosystem productivity and the level of ecosystem services that are provided (for humans that is more pollination, more fish, more lumber, more oxygen, more water filtration, more carbon sequestration, more and better buffers for large weather systems, etc.).

He goes on to explain how energy is transferred in an ecosystem and the vital role that plant-eating insects play in that transfer. He quotes Pulitzer prize-winning author and renowned ecologist E.O. Wilson when he calls insects "the little things that run the world."

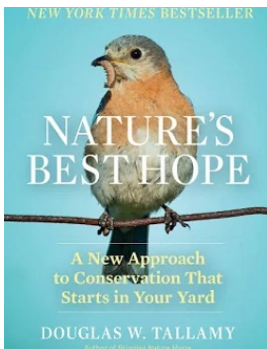


By undergoing eons of the natural selection process, our native insects have come to depend upon our native plants. In general, our native insects cannot eat alien species, so these plants hold little usefulness to our ecosystem. Here he first calls on us to “restore native plants to suburbia.”

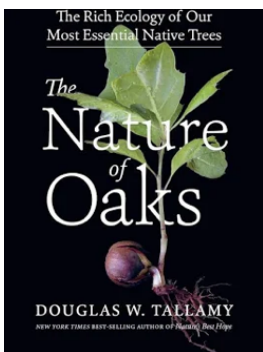
- In his second book, *The Living Landscape*, written with Rick Darke, he shows the reader how to create a diverse and layered native landscape that fosters wildlife, while also creating beauty, privacy, a space for the kids to play and maybe even a vegetable patch.



- In his third book, *Nature's Best Hope*, Prof. Tallamy talks about conservation, the importance of native plants in suburban yards and connectivity in the landscape. He then introduces the concept of “Homegrown National Park,” where every landowner is called on to convert part of their property to native plants. By doing this, we not only benefit the ecosystem, but we reap the many benefits that come with reconnecting with the natural world. It is the “largest cooperative conservation project ever conceived or attempted.” The book is a New York Times best seller.



- Finally in 2021 he released *The Nature of Oaks*. While it is beneficial to plant native plants, there are some that are particularly important. In this monthly



almanac-type book he describes how oak trees “sustain a crucial and complex web of wildlife” both above and below the ground.

Spoiler: Here is a quote from the epilogue of the book

“Our winner-take-all extraction-based economies, coupled with our unchecked population expansion, have triggered the sixth great extinction event of planet earth’s 4-billion-year history. Over a million species are headed for extinction in the next few years unless we take immediate action (Sartore 2019). We have no choice but to prevent such losses, not because we’re nice guys, but because it is those species that run the ecosystems that support us. And by “we,” I mean every single human earth-dweller, not just the surprisingly few people who already recognize the necessity of sustainable earth stewardship. Although their impending demise is bad enough, it is not the loss of rare and endangered species that we should fear; their populations are no longer large enough to have major impact on our ecosystems. Rather, it is the loss of the common kingpins, like oaks, that we must prevent as if our well-being depends on them. For it does.”

**All of these books  
come highly  
recommended. The  
latter 3 are available  
through the Waukesha  
County Library  
System**

## Climate change topics

### Massachusetts startup transforms old electric car batteries into better-than-new ones

Excerpted from WBUR January 25, 2022

Bruce Gellerman

The switch to electric vehicles is accelerating worldwide. Today there are about 10 million battery-powered vehicles on the road, and by the end of the decade, the International Energy Agency predicts that there could be 230 million. But there's a problem down the road. All these

vehicles are powered by batteries, and when they come to the end of their life cycles, they could end up as toxic trash.

Enter---a Massachusetts startup which claims it can turn lithium-ion batteries into ones that

area better than new. It's already doing this.

The newly renamed company, Ascend Elements, now based in Westborough, takes thousands of pounds of lithium-ion batteries from cellphones, power tools, laptops and EVs and shreds them. The batteries don't need to be sorted, which simplifies the recycling process. The process, called "Hydro-to-Cathode," takes about a week to extract the impurities from the powder, leaving behind vats filled with valuable EV metals, according to the company. It also recovers almost 100% of the metals and produces no toxic waste.

Check out the rest of this informative article by entering this link: WBUR Bruce Kellerman



### US Plastics Pact releases anticipated 'problematic materials' list

Source: WasteDive.

Megan Quinn

The US Plastics Pact, formed in 2020, aims to make all plastic packaging 100 % reusable, recyclable, or compostable by 2025.



In late January 2022, the group announced the list of 'Problematic and Unnecessary Materials' that are currently "not reusable, recyclable, or compostable at scale in the US." The pact calls for these items to be phased out by that



year. The group also seeks to recycle or compost 50% of plastic packaging by that same date, and further intends to ensure packaging has at least 30% recycled or bio-based content.

The complete article is available:

**US Plastics Pact releases anticipated 'problematic' materials list – Waste Dive – 1/25/2022**

### Worst funders of fossil fuels

Source: Rainforest Action Network

1. JPMorgan Chase: The world's worst banker of climate change every year since the signing of the Paris Agreement in 2015. From 2016-2020, Chase's financial activities provided nearly \$317 billion to fossil fuels, 33% more than Citi, the 2<sup>nd</sup> worst bank during this period.
2. Citi: For the first time since 2016, Citi was 2020's worst financier of the 100 key oil, gas, and coal companies expanding fossil fuels, narrowly ahead of Chase
3. MUFG: Japan's largest bank is among the top funders of the toxic Line 3 tar sands pipeline and one of the biggest financiers of Conflict Palm Oil, a commodity linked to rainforest destruction, labor exploitation and human rights violations.





## WEAL in action on environmental issues



Members loaded their arms and tarps with garlic mustard they picked in the oak-dominated savanna near Waukesha's bike trail.



On a Saturday morning, members took to the Fox River shoreline with garbage bags to pick up trash which could have ended up in the River.



During Earth Week 2022, WEAL's Zero Waste campaign was set up in the New Berlin Public library inviting the public to participate.



WEAL donated supplies to the Youth Garden project, a program within Health and Human Services Department, which rehabilitates youth within the HHS program

On April 9<sup>th</sup>, the Zero Waste Waukesha campaign was available for the public in New Berlin at a community event.

