

Clean Water Action Council

OF NORTHEAST WISCONSIN

— CELEBRATING 30 YEARS OF WORKING TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT IN NORTHEAST WISCONSIN —

SPRING 2015

Mitigating and Adapting to Climate Change in N.E. Wisconsin

Will 2015 Be the Year for Decisive Action on Climate Change?

Introduction by CWAC President Dean Hoegger

During the December 2014 climate talks in Lima, Peru, Catholic bishops from every continent called for an end to fossil fuel use. They believe that addressing the causes and effects of climate change is both a moral and social justice issue. They acknowledged that the impacts of a changing climate will affect the world's poorest people; those least contributing to its cause.

The bishops' call for the world's 1.2 billion Catholics to recognize and act on climate change should bring greater urgency to reaching agreement at the Paris talks scheduled for November this year. "As the church, we see and feel an obligation for us to protect creation and to challenge the misuse of nature. We felt this joint statement had to come now because Lima is a milestone on the way to Paris, and Paris has to deliver a binding agreement," stated Monsignor Salvador Piñeiro García-Calderón, Archbishop of Ayacucho.

The Paris meeting of the United Nations Climate Change Conference will take place from November 30 to December 11 with the objective to achieve a legally binding and universal agreement on climate, from all nations of the world. The lead-up to the Paris conference includes over 20 U.N. sponsored workshops and events.

In January, President Obama and Indian Prime Minister Narendra Modi announced that the two countries will work together to fight global climate change. They set goals for policy dialogue and technical work on clean energy and lowering greenhouse gas emissions. These talks also placed an emphasis on the countries working together to bring about success at the Paris conference.

While the Obama administration is working toward international agreements, including the unprecedented agreement with China in November 2014 for both countries to cut emissions significantly, the U.S. Congress lacks a similar commitment to addressing climate change, or even

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CWAC to Co-sponsor Climate Change Forum with Focus on N.E. Wisconsin



On Saturday, May 9, the Clean Water Action Council of Northeast Wisconsin will co-sponsor the second annual Door County Climate Change

Forum at the Stone Harbor Conference Center in Sturgeon Bay. The forum, presented by the Climate Change Coalition of Door County, is intended to increase awareness of the local impacts of climate change and to foster discussion among community leaders and interested members of the public on cooperative action to address those impacts.

The forum will feature:

- Tia Nelson, Executive Secretary, Wisconsin Board of Commissioners of Public Lands and Co-Chair
- Professor Molly Jahn speaking on "Climate Change and Food Security; Global and Local Impacts of Climate Change on Agriculture"
- Dr. Lee Frelich discussing "The Future of Our Boreal Forest in a Changing Climate"
- Todd Ambs presenting "Climate Change and the Great Lakes: What is Happening Now and What Should We Expect," and Matt Reetz explaining "Birds and Climate Change: What Should We Expect?"

E-mail us at contact@cleanwateractioncouncil.org for a program and registration form.

***"If we destroy Creation,
Creation will destroy us!" - Pope Francis***

recognizing it. When Sen. James Inhofe (R-Okla.) brought a snowball to Senate proceedings to demonstrate that climate change is a hoax, it was an example of the lack of commitment from this Congress. The University of Texas-Austin Energy Poll indicated that half of all Republicans are still in denial on the issue. Fortunately, the poll also indicated that over 86% of Democrats accept climate change and other polls indicate that about 70% of all Americans recognize that climate change is not a hoax.

Join us in this issue's examination of the effects of climate change in northeast Wisconsin.

Merchants of Doubt Create Cloud Over Climate Change

By Charlie Frisk



“Doubt is our product,” a cigarette executive once observed, “since it is the best means of competing with the ‘body of fact’ that exists in the minds of the general public. It is also the means of establishing a controversy.”

Although largely discredited today, the tobacco industry was able to stall legislation for decades by hiring pseudo-scientists who maintained that nicotine was not addictive, and cigarette tar was not a carcinogen.

The same ‘doubt’ strategies used by the tobacco industry and many of the same ‘scientists’ are now being used in the debate over global climate change. The top three global climate change sceptics are Bill Nierenberg, Fred Sietz, and Fred Singer. Nierenberg and Sietz are both recently deceased, but they are still frequently quoted, and their impact lives on. They were all political conservatives, philosophically opposed to government regulation, and advocates of small government.

These three physicists have been used by industry to oppose regulation of tobacco, acid rain, dioxins, pesticides, ozone depletion, and global climate change.

Fred Singer, considered by many to be the ‘granddaddy of fake science’, worked for both the Phillip Morris Corp. and the Tobacco Institute. His major research task for the tobacco industry was to refute any research showing a connection between second hand smoke and disease.

Today Singer heads up the Heartland Institute, a right wing think tank funded primarily by Exxon and the Koch brothers. Singer will resort to any strategy in his anti-regulation rhetoric; sometimes arguing that “the climate has been cooling just slightly” and at other times admitting that the climate is warming, but saying that is “unequivocally good news because rising CO₂ levels and higher temperatures increase plant growth and make plants more resistant to drought and pests.”

The misinformation tactic is working very well for the power industry. Although a recent study shows that 97%

of climate scientists believe that the climate is warming, and that human activities are the major cause, a recent poll by the Pew Institute shows that only 40% of Americans accept that human activity is the dominant cause of global warming. “The single most common myth about climate change among Americans is that there’s a lot disagreement among the experts,” says Ed Maibach, director of the Center for Climate Change Communication at George Mason University. “And the reason why they think there is a lot of disagreement among the experts is because there was an intentional strategy to sow the seeds of doubt.”

Part of the problem may be related to the way scientists work. Traditionally scientists have presented their research, but then steer clear of advocating solutions to the problems that they have uncovered. The scientific community maintains that advocating specific solutions will tarnish their scientific integrity and impartiality. However pseudo-scientists such as Fred Singer adhere to no such ethical restraints, they accept that they are hired guns for industry, and that their job is to be a spokesperson for that industry. The hired guns end up looking much more like passionate advocates for their message.

The American news media also contributes to the confusion. The American press bends over backwards to be fair, and part of fairness is presenting both sides of the issue. So even if the vast majority of scientists believe that human activities are contributing to global climate change, the press grants equal time and space to a few skeptics, the majority of whom are on industry payrolls. Exacerbating that problem is Fox News, which makes no attempt at impartiality, and only presents the views of the climate change deniers.

The Internet is also contributing to the problem. When I challenge people on certain ‘facts’, I frequently hear them say, “I heard it on the Internet, so it must be true.” Industry spends millions on websites designed to spread misinformation about climate change.

Why does it matter that the majority of the public is scientifically illiterate about global climate change and its causes? One entire political party consists of politicians who either deny climate change, or if they accept it, refuse to acknowledge that human activities have anything to do with it.

With climate change threatening to make our world a much more hostile place to live, it is imperative that the general public put pressure on politicians to deal with the problem. Reversing or slowing climate change will require sacrifices and major changes in the ways we do things. Until a strong majority is on board for doing something about climate change, nothing positive is going to happen.

Sources:

Doubt is Their Product by David Michaels

Merchants of Doubt by Naomi Oreskes, Eric Conway

“The Age of Disbelief”, *National Geographic Magazine*, March 2015, page 30-47.

“Rethinking How We Think about Climate Change”, by Elizabeth Kolbert, *Audubon Magazine*, Sept.-Oct. 2014, page 46-48.



Staff photo

Climate Change Already Threatens Wisconsin Forests While Some Wisconsin Politicians Remain Unconvinced

Guest article by Bill Berry

STEVENS POINT – Ah, northern Wisconsin, the land of pines and lofty balsams, as the old Hamm's Beer song extolled.

Turns out those trees will soon be mowed down by climate change, according to a nationally respected forest ecologist. It's tempting to say "serves you right" to climate change deniers up north — including elected officials like state Sen. Tom Tiffany and U.S. Rep. Sean Duffy — but the indisputable evidence of ecosystem upheaval is too serious for that. Tiffany, of Hazelhurst, fancies himself an expert on the topic. He has said this about climate change: "The use of pseudo-science, like the notion of climate change, must not be used to advance a political agenda in Wisconsin."

Duffy's actions speak volumes. The 7th District representative voted in favor of a bill to eliminate the National Science Foundation's Climate Change Education Program last year, and he has opposed efforts to abate climate change, such as a cap-and-trade system to reduce carbon emissions.

Thank goodness for people like Lee Frelich, director of the University of Minnesota's Center for Forest Ecology. Frelich reminded a group that gathered in St. Croix Falls recently that the snow lingering on the ground in parts of the state this year is as much a sign of climate change as the extreme heat of last spring. The new normal is dramatic weather swings. The Wisconsin native and UW-Madison graduate has spoken about climate change across the U.S. Much of his research has focused on the Upper Midwest.

Among the points he made, according to *The Country Today* newspaper:

Minnesota's Boundary Waters Canoe Area Wilderness

could have the same climate as the Corn Belt by the end of the century. But you can't grow corn on granite, he noted.

Severe wind events and droughts, by-products of climate change, are already transforming forested regions of Minnesota and Wisconsin. Winds will put species like aspen and jack pine at risk. Drought will stress trees and lead to diebacks like those already affecting millions of acres of western U.S. forests.

By the end of the century, Wisconsin's summer climate will be more like southern Missouri and Arkansas, he predicted. Large swaths of northern Wisconsin and Minnesota will be deforested as they become more like prairies. That will release vast amounts of carbon into the atmosphere and displace plant and animal species from northern ecosystems. Balsam fir, a signature species of the north, will be all but eliminated, he added.

Climate deniers espouse the myth that the science was invented by alarmists in the 1980s. In fact, scientists knew carbon dioxide was a greenhouse gas by the 1820s, and thousands of research papers have been written on the topic since then. "We have a 200-year body of scientific evidence on climate," Frelich told the St. Croix Falls audience. "Climate responds to the laws of physics, not people's opinions or beliefs."

But opinions, beliefs and political dogma drive the likes of Duffy and Tiffany. Both could be doing things to abate climate change, but they'd rather appeal to fringe groups with political agendas than address an immense problem. Duffy could join forces with respected members of Congress who want to act. Tiffany could push the same agenda in Wisconsin. The state of California has adopted a cap-and-trade system. Instead, these Wisconsinites deny facts at the cost of human lives and ecosystem degradation. So much for the pines and lofty balsams.

Bill Berry of Stevens Point writes a semimonthly column for The Capital Times and can be e-mailed at: billnick@charter.net

Future of Wisconsin's Forests in a Changing Climate

By Anthony Sirianni Jr.

Wisconsin's climate facilitates the survival of native plant species and small temperature changes can have drastic repercussions. According to the WDNR, climate scientists predict that snow cover will decrease by forty percent in northern Wisconsin over the next half century.

Numerous plant species, such as lowland conifers, rely on snow's thermal insulator qualities to protect their fragile root systems. Without adequate snow cover, these species will no longer thrive in Wisconsin. Decreased snow rates also allow foraging species, such as deer, increased opportunities to damage forests and native vegetation.

The WDNR's website states that spring weather now arrives six to twenty days earlier than it did in 1950, which extends the growing season by nearly two weeks. The problem with this change is that native plant life-cycles rely on the life-cycles of other systems to survive. An example includes the timing of spring and the arrival of insects. Forest floor vegetation species such as trout-lilies, trilliums, violets, and bloodroot have a short reproductive time frame. They must bud and drop seeds before forest tree leaves block out the sun. As these species continue to bud earlier, they are not being pollinated because flies and bees have not yet hatched.

A recent Forest Service report demonstrates that the occurrence of rainstorms producing three inches of rain, or more, has increased threefold in Wisconsin between 1961 and 2011. The effects of continued climate change will drastically change Wisconsin's forests. The Forest Service anticipates a mean annual temperature increase for the Midwest, of two to nine degrees Fahrenheit over the next one hundred years. This temperature increase will exist in all four seasons and the greatest changes will occur in central and northwestern Wisconsin.

Currently, Wisconsin's last spring freeze takes place an average of 5.6 days earlier and the first fall freeze occurs an average of 6.5 days later. Also, Wisconsin's mean precipitation has increased by two inches from 1901 to 2011. The form of this precipitation has also changed. Snow fall has decreased and rainwater is responsible for the increase in precipitation. Forest Service records indicate that Wisconsin's most significant temperature changes, during the 20th century, have occurred during the winter.

Wisconsin's forests will continue to change with the climate. Upland spruce-fir, lowland conifers, aspen-birch, lowland-riparian hardwoods, and red pine forests are northern Wisconsin's most susceptible ecosystems to climate change. As temperatures continue to rise, native forest species will shift northward and will no longer be present in Wisconsin. Invasive species will fill the void left by native vegetation.

Existing forests in bordering states to the south, will shift northward and further change the landscape of Wisconsin's forests. Tamarack lowland swamps will not survive without adequate snow fall to insulate their roots and protect them from freezing.

These changes are projected to occur by the end of the century, but are subject to alteration as the climate continues to change. Proactive forest management will be crucial to providing protection against erosion, establishment of animal migration habitats, and the relocation of suitable plants.

Climate Effects on How the Great Lakes Grow and Flow

By Kevin Duffy

<http://greatlakesecho.org/2015/01/28/climate-affects-how-the-great-lakes-grow-and-flow/>

New climate projections suggest increases in maximum and minimum daily temperatures in the Lake Michigan basin by as much as 8 degrees by 2099. With temperatures rising, annual water flow from precipitation and runoff is expected to increase during winter and decrease in spring, especially in northern Michigan and Wisconsin.

A recent report by the U.S. Geological Survey (USGS) is intended to help land managers cope with the seasonal changes resulting from climate change in the lake basin. Those seasonal changes include the impact of low flow on wetlands and sensitive fish and invertebrate populations, researchers said.



Image: U.S.G.S. The Lake Michigan Basin and supporting water systems.

The report focuses on the Lake Michigan watershed – every lake, river and tributary that drains into it. The USGS modeled the entire basin and proposed similar climate-based projections in the Lake Superior and Lake Erie watersheds.

“The model is intended to provide data that managers can use now and in the future to restore lakes to their pre-industrial state, to get things back to normal,” said Daniel Christiansen, a USGS scientist based in Iowa City, Iowa and the lead author of report.

It takes daily weather inputs – rain, snow and air temperature – to determine how water is stored and how it moves across the landscape on a monthly and annual basis. These models aren't new. Scientists have used them to make flood estimates and to regulate water flow into dams, said Christiansen.

The report uses streamflow measurements collected by the National Phenology Network, a group of professionals and citizen scientists who collect and share environmental data. The Phenology Network has already released data verifying the shifts in seasonal climate conditions, especially later in spring, said John Walker, who coauthored the report.

USGS Stream Gauge Flow is reported using a stream gauge. “It’s remarkable the amount of data we get from people,” he said. “We have a network of stream gauges, some with a signpost and tick-marks to catch the water level and a phone number to report it.”



Image: U.S.G.S. Streamflow measures the amount of water moving across the basin at any instant.

Hundreds of thousands of these observations were analyzed for the report. They come from 148 USGS gauges and 157 National Weather Service climate stations, which provide the technical readings on streamflow, water lost to the atmosphere and solar radiation. The report used radiation from the sun as the main driver for water movement in the basin.

Whether it’s rising temperatures, rising water levels or an extended growing season, the sun’s energy controls the availability of water in any system. And with monthly flow over the course of a year expected to increase, scientists continue measuring how water moves – if it’s released as rain or locked in snow.

The winter snowpack, which normally remains frozen, can melt as a result of higher temperatures and rain. This not only raises concern about flooding but also lowers the amount of water available in spring. “To track these changes, the model splits data into periods of low and high flow,” said Walker. Low flows represent the lowest 10 percent of water levels, where “it’s been low enough for fish species and invertebrates to see distress,” he said.

Current conditions rely on when the snow melts and how much snow melts to recharge water systems and soil. But the model predicts lower spring flows and drier soils in the decades to come. It also suggests a lengthening in the

growing season.

If the beginning of the growing season shifts earlier and the end shifts later, as the report suggests, plants can bloom before insects are able to pollinate them and can grow late into the season, affecting seasonal food availability, reproductive cycles and the migration of wildlife.

As the season extends, the ecosystem within the basin must respond. If the ecosystem cannot adapt, sensitive environments and species will suffer, according to the report. “Ecosystems evolved to correspond to different triggers, so if the triggers start to change, there will be problems,” said Walker.

The timing of flow is as important as the quality of the water. And while it’s difficult to accurately predict the future of water within the Lake Michigan basin, the USGS recommends further action to understand the ecosystem functions affected by seasonal climate change.

Goodbye to the Loon

By Charlie Frisk

When selecting a campsite in Wisconsin my most important requirement is that the lake has to be occupied by loons. A lake without loons is a spiritless body of water, but a lake with the magical call of loons makes you feel that you are in sublime wilderness. Common loon breeding range historically extended as far south as northern Illinois, but by the time I came to Wisconsin in the early 1980s, loons were restricted to lakes in the northern third of the state.

When people first started developing Wisconsin’s lakes for tourism, loons were very intolerant of human activity. Motor boat activity would frighten loons off of the nests, and the eggs would frequently be chilled or destroyed by predators before the parents would return. Most of the lakes that had successful nesting loon pairs were non-motorized lakes that had little human activity. But, over time, some loons became more tolerant of human activity, and as these tolerant loons produced tolerant offspring, loons re-established themselves on lakes that had not seen nesting loons in decades. Boulder Lake, the lake on which we have our cottage, had not had loons for at least the second half of the 20th century. For the past decade, despite



Staff photo

excessive motor boat and jet-ski activity, loons have nested successfully on Boulder Lake.

Unfortunately, however, this good news for loons may soon be undone by global climate change. According to the “Audubon Report,” a study published by the National Audubon Society in 2014, by 2050 the non-breeding range of the common loon will shrink by 63% and the breeding range by 32%. If humans continue to produce greenhouse gases at the present rate, Minnesota and Wisconsin will likely have no loons at all by the end of the 21st century.

What is it about a warming climate that is so bad for loons? Part of the problem is related to food. The fish species that the loon depends on in Northern Wisconsin such as perch, walleye and smallmouth bass do not tolerate warm water. Whereas, fish, such as carp, make the water so murky that sight feeders like loons cannot locate their prey. Nest predators such as ring-billed gulls, crows, raccoons, opossums, and skunks are now moving into loon nesting range due to warming temperatures.

When I first canoed the Boundary Waters Canoe Area Wilderness in Minnesota in the early 1970s, there were no ring-billed gulls, raccoons, or opossums in northern Minnesota. Today, they are all relatively common there. Last year 90% of the loon pairs in Vilas County abandoned their nests due to harassment by avian black flies. Some pairs successfully re-nested, but the second nesting usually produced only one chick instead of the usual pair. Whether the upsurge in avian black flies was due to climate change we don't know for sure.

According to the “Audubon Report,” the ruffed grouse, Wisconsin's most popular game bird, will lose 77% of its range by 2080, and will disappear entirely from the lower 48 by the end of the century. The bobolink, a grassland nesting bird, will no longer breed in Wisconsin by 2080. Unfortunately for the bobolink, the boreal forest habitat of southern Ontario will not provide suitable nesting habitat, and they will likely undergo a dramatic population decline, or possibly even go extinct. The osprey, a bird still recovering from DDT usage, will lose 68% of its breeding range by 2050. Many species of warblers, flycatchers, vireos, and other songbirds that nest in northern Wisconsin's mixed deciduous/coniferous forest will decline or disappear altogether from our state.

There are those who would say, big deal, these birds will still exist in Canada and other northern climes; but as Aldo Leopold said when talking about the extirpation of the grizzly from the lower 48, “Relegating the grizzly to Alaska is like relegating happiness to heaven; one may never get there.” For our generation to live a lifestyle that denies future Wisconsinites the opportunity to hear the haunting call of the loon, be startled by the explosive flight of a ruffed grouse, and to witness the migration of the colorful warblers is unbelievably sad, and morally wrong.

Source: “The Audubon Report”, Sept/Oct 2014, *Audubon Magazine*

Climate Change and Food Production in Wisconsin

“The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty and we must rise with the occasion. As our case is new, so we must think anew, and act anew.” – Abraham Lincoln, 1862

Agriculture in Wisconsin is already affected by climate change while other regions of the U.S. are more challenged. Until mid-century climate change is not expected to directly affect our food security or significantly affect agricultural economic output in Wisconsin. After this point in time the risk increases as greenhouse gases increase, causing social, economic and ecological services to unravel do to extreme temperature and precipitation events. This overstresses biological, economic and sociopolitical systems.

Most of these affects can be avoided if nations collectively reduce greenhouse gas emissions significantly in the next fifteen years according to the International Panel on Climate Change and the U.S.D.A. report Climate Change and Agriculture in the U.S.

Our food preferences that are out of season and do not grow here such as avocados will undoubtedly be pricier and out of reach for some populations that currently enjoy them. Scientists from Lawrence Livermore National Laboratory predict a 40% drop in California avocado production over the next 31 years due to climate change. Another study, “Unprecedented 21st-Century Drought in the American Southwest and Central Plains” (Science Advances, Feb. 2015) shows a new normal of mega-drought. Such a future will certainly affect food choices and their costs for Wisconsin residents.

“The Economic Risks of Climate Change: Midwest Report” states that Minnesota, Wisconsin and Michigan's future climate change may allow double cropping. However, eventually there will be losses for southerly Midwestern states for corn and wheat of 11% to 69% with a one-in-twenty chance that 80% production decline by centuries end. The Wisconsin Initiative on Climate Change Impacts (WICCI) agricultural workgroup concludes that any degree of future warming during the core of the growing season would have a negative impact on agricultural productivity.

Change is for certain, but with both pros and cons of climate change. Our diverse agriculture will need to evolve and adapt to a multitude of factors led by temperature and precipitation. Additional factors will include new insect pests, diseases and weeds. Out of synch beneficial insects and the plants they pollinate will also require adaptation. Extreme rain events of greater than two inches are expected to increase 25% by mid-century. Winters are to be warmer with less precipitation on the ground as snow. Both of these factors are thought to add to erosion and runoff risk.

How we adapt and mitigate will have an affect on the outcome of change. Our social-political systems will affect

outcome. How farmers and the system adapt to climate change will be affected by government policy, in particular the future Farm Bill. Soil health, which brings climate resiliency, is currently an adaptive policy that hopefully will be continued in future Farm Bills along with policies that support renewable energy use and greenhouse gas reduction.

Agriculture is a social-ecological system. How farmers adapt and support mitigation is best served with continued research, education and outreach through trusted relationships.

Climate studies continue to show man-made increase in greenhouse gas has an affect on climate and the picture of what is more likely to happen is coming into better resolution along with choices. In terms of agriculture in Wisconsin, the biggest warning is that “Climate change effects that surpass critical ecosystem thresholds or result in dramatic transformation of the physical environment of a system, may present limits to adaptation.” (Climate Change and Agriculture in the United States: Effects and Adaptation) There is a limit to adaptation where mitigation is also necessary. “Climate Forward: A New Road Map for Wisconsin’s Climate and Energy Future” states “Most experts agree that serious reduction efforts won’t happen without settling on a price per ton for carbon emissions.”

Decline of Minnesota Moose

By Charlie Frisk

The moose population of Northwest Minnesota has declined from over 4,000 animals in the 1980s to less than a hundred today. It is believed that the population will not survive more than a few years. There are a variety of factors that are thought to be behind the decline, most of which



are related to global climate change. Over the past 50 years average winter temps in northern Minnesota have risen 12 degrees F, and average summer temperatures 4 degrees F.

With their large dark bodies moose are a cold adapted species, and on hot summer days they will lie down in cool, damp locations and pant in an attempt to cool themselves rather than feeding. During extended hot spells they will actually lose weight at a time they should be putting on weight in preparation for winter.

The warmer winters have resulted in greatly increased numbers of winter ticks. Individual moose have been found with over 150,000 ticks on their body; a moose with that number of ticks is literally completely covered. The ticks are taking so much blood that the moose actually start to break down their own body proteins to replace the blood. Moose with high loads of ticks will show signs of malnutrition even when surrounded by abundant food.

Brain-worm has increased dramatically since the 1980s. Whitetail deer are immune carriers of brain-worm but it is lethal to moose. As winters have become warmer whitetail deer are moving into moose range in greater numbers and transmitting the disease.

Due to increased stress and disease, pregnancy rates in adult cows have dropped to 48%, whereas healthy moose populations have a pregnancy rate of about 85%. Cow moose that are in poor shape are also less able to defend their calves, so calf predation has risen dramatically. Predation by wolves and black bears has increased. A certain amount of predation is normal, but many of the moose being killed are animals that should have been able to drive off wolves or bears if they hadn't been weakened by ticks, brain-worms, or malnutrition.

The Northeast Minnesota moose population began their decline later than the Northwest population, but they are actually declining more rapidly. They have dropped about 50% in the last decade, and biologists have little hope of reversing the decline.

Moose are one of the most spectacular animals of the Midwest. One of the greatest thrills of a trip to the Boundary Water Canoe Area was to see a moose. Because of the impacts of global climate change that may very well be a thrill that canoeists of the next generations will never experience.

Sources:

National Wildlife, “The Mystery of the Disappearing Moose”, Doug Smith, 02-01-2007
National Wildlife, “The Deepening Mystery of the Disappearing Moose”, 09-29-2014

Wisconsin Falling Behind in Climate Change Policy

By Beth Alswager, Intern



Most people now realize that our modern civilization has an impact on the earth, and specifically on the earth's climate. The gases emitted from motorized vehicles and through stacks at power plants are compounded because much of the Earth's forested regions, which act as natural carbon shields, have been cleared to make room for urbanization. All these human activities accelerate the rate at which climate change is approaching. However, we also have the tools to slow down this process. Throughout the world, including the United States, governments are initiating policy reforms that they hope will help to mitigate climate change. Mitigation tactics are best done on a large scale in order to have the most effectiveness in slowing the effects of climate change. The main policy areas that can make a major difference are in agriculture, industry, energy, and transportation.

On July 24, 2008, the Task Force on Global Warming finalized its climate action report and forwarded it to Wisconsin, addressing these key policy areas in their effort to deter greenhouse gas emissions. Governor Doyle signed Executive Order 191 on April 5, 2007, creating the task force to bring together a prominent and diverse group of key Wisconsin business, industry, government, energy, and environmental leaders to examine the effects of, and solutions to, global warming in Wisconsin. The group was tasked with delivering to the Governor a state plan of action with a reduction in Wisconsin's contribution to global warming. They agreed on carbon emissions reduction targets using 2005 emission standards and aimed for being 22% below 2005 levels by 2022, and 75% below 2005 levels by 2050.

Wisconsin is also a member state of the Powering the Plains initiative sponsored by the Center for Climate and Energy Solutions. Powering the Plains addresses energy

and agricultural issues through the development of an integrated energy strategy, policy recommendations, and demonstration projects. <http://www.c2es.org/us-states-regions/news/2007/powering-plains>.

Unfortunately in recent years under Governor Scott Walker, an avid climate change denier, no new headways have been forged. In fact, Governor Walker plans to sue the Obama Administration and the EPA over rules that would further limit emissions from power plants. Wisconsin still gets 62% of its electricity from coal plants, and Walker claims that these new rules will initiate plant shutdowns, cause unemployment to grow, and create a dramatic increase in utility rates. At the same time, Wisconsin utilities have been trying to restructure rates on renewable energy. In most other parts of the country, including surrounding Great Lakes states, renewable energy is being pushed forward with incentive programs. Here the leadership is more interested in keeping the status quo, and ignoring the impacts on our climate.

Another unfortunate setback is the increase in CO₂ emissions in 2014, and studies show that poor agricultural practices are a large culprit. In a study published Nov. 19, 2014 in *Nature*, scientists from all over the country including the University of Wisconsin-Madison show that a steep rise in the productivity of crops grown for food accounts for as much as 25% of the increase in seasonal CO₂ emissions (<http://www.news.wisc.edu/23298>).

Christ Kucharik of UW-Madison helped a team of scientists determine how the amount of carbon absorbed by the leaves, stems, roots and food-portion of crops may have changed over time, which shows how agricultural lands and the management practices drive changes of the amount of carbon being balanced in the atmosphere. They deduced that increased yields, not increased land use, account for the dramatic increase of carbon. Modern farming practices, though profitable, are proving to be dangerous for the climate when done on a grand scale.

These developments mean that it is more important than ever to make our voices heard to our elected officials. They need to know that there are many people who support climate change mitigation strategic policies. Call and e-mail your representatives and tell them to support policies such as ones that provide incentives for farmer's to practice better land management, incentives to power plants to reduce emissions, and incentives to increase home-produced electricity from solar power.

It has been shown that incentive-based policies are not only the most effective but also economically beneficial, as opposed to types of policies that simply limit or inhibit completely. This is where environmentalists and cornucopians can find common ground, and common ground gets results in government action.

(<http://www.epa.gov/statelocalclimate/state/tracking/individual/wi.html>)

Mitigating Climate Change: What you can do!

By Beth Alswager, Intern

Our civilization has exacerbated climate change because of our way of life and population size. We know that all of our vehicles, large-scale agriculture, industry, and fossil fuel-sourced energy is not going to be sustainable for the future. Massive changes in government policy will be a great benefit to mitigating these large scale issues, but we still need to make personal changes, too, in order to make a difference. If we all can do our part, our small actions could make a significant difference in the fight against climate change.

There are several practices to do at home, work, and at school to live a more sustainable lifestyle. Use energy efficient appliances and switch incandescent light bulbs to energy efficient ones. Think about your water usage as well. Use the dishwasher only sparingly and only for full loads. Repair any plumbing leaks right away including leaking toilet tanks. Make sure your house is sufficiently insulated. Recycle everything possible and compost your garbage, because the less that gets sent to the landfill the less emissions from disposal. Not to mention compost is great for your yard and garden! If you want to calculate your home's carbon footprint and get more ideas on how to reduce it, go to <http://www.epa.gov/climatechange/ghgemissions/ind-calculator.html>.

Here in Wisconsin it can be difficult not to drive one's car. Many of us commute a considerable distance to work, and even if we do not, the weather is not always conducive to biking or walking. However we can make an effort to find coworkers with like commutes and share driving responsibilities. If you live in the city, try to use public transportation more often. If you drive an older vehicle, consider upgrading to a newer, more fuel efficient car or hybrid. Also the way you drive effects emissions, so go easy on the brakes, use the cruise control when possible, avoid hard accelerations, reduce your time spent idling, and unload unnecessary items in your trunk to reduce weight. Timely maintenance and tire care are also essential so that your car is always running in top condition.

Encourage your friends and neighbors to adopt these habits as well, because the more people that move towards a more sustainable lifestyle, the larger the impact on the environment. There are many ways that we as individuals can help, such as lobbying for policies and educating people

to make small changes in their lifestyle. If we all put forth an effort with these small changes, together they will add up to something that can help mitigate climate change.



The Action in CWAC

By Dean Hoegger

THE 2015 MEMBERSHIP DRIVE IS UNDERWAY!

Membership dues are based on a calendar year, so our membership drive for 2015 began with our Winter Newsletter. If your newsletter label does not have a '15 after your name, or e-mail notice does not indicate you paid your membership in 2015, please renew. If your renewal date is before 2014, please consider a generous donation in 2015 to cover both years! Our membership donations make up a significant part of our budget. Please help us continue to take action on your behalf to protect the environment and human health by renewing your annual membership.

VOLUNTEER!

Please contact Dean at 920-495-5127 to volunteer at the office at 2100 Riverside Drive, Green Bay. You can help us with issue research, grant writing, outreach projects, member contacts, filing, record keeping, helping at exhibits and much more!

READ BELOW ABOUT ACTIONS WE HAVE TAKEN IN THE LAST THREE MONTHS. BE SURE TO CONTACT US IF ENVIRONMENTAL ISSUES ARISE IN YOUR COMMUNITY. CWAC IS HERE TO SUPPORT CITIZEN ACTION. THE FOLLOWING ARE OUR MOST SIGNIFICANT ACTIVITIES SINCE DECEMBER:

LEGAL ACTIONS

CWAC JOINED GROUPS TO FORMALLY REQUEST FEDERAL ACTION ON GROUNDWATER CONTAMINATION ISSUES IN KEWAUNEE COUNTY.

On October 22, CWAC joined Midwest Environmental Advocates, Clean Wisconsin, Environmental Integrity Project, Midwest Environmental Defense Center, and Kewaunee C.A.R.E.S. to jointly file a written Petition for Emergency Action detailing the need for the U.S. Environmental Protection Agency to exercise its emergency powers under the Safe Drinking Water Act and other federal pollution cleanup laws in an area where contamination poses serious public health threats.

Since that filing, MEA has had ongoing discussions with the EPA and sent materials in support of the petition. They have also invited the EPA to come to a listening session in Kewaunee County.

The petition and supporting documents can be found at: www.cleanwisconsin.org/kewaunee-safe-drinking-water

A comprehensive report about the vulnerability of groundwater resources in karst regions of northeast Wisconsin can be found at: http://midwestadvocates.org/assets/resources/Kinnard%20Farms%20CAFO%20Exh_25.pdf

CWAC VS. EPA

In February of 2013, several of our members signed on to the case *Clean Water Action Council et al. v. EPA*. Our attorney, Dave Bender, presented oral argument in the case before the U.S. Circuit Court of Appeals for the Seventh Circuit on September 23, 2013. A favorable ruling in this case would create case law at the federal level that would ensure rights granted in the Federal Clean Air Act and could be used in appeals at the state level. However, our Petition for Review was denied.

CWAC'S EVENT PARTNERSHIPS

As noted on the front page, CWAC is working with the Door County Climate Change Coalition to bring the Second Annual Climate Change Forum to Sturgeon Bay and will be a primary sponsor of the event. CWAC is also on the planning committee for the Door County Sustainable Living Fair and is co-sponsoring the event.

CWAC'S EDUCATIONAL EFFORTS IN THE COMMUNITY

Part of CWAC's mission is to provide education on environmental issues to our members and the community. Since the last newsletter, we have actively pursued this mission. Here is an update. **Contact us to schedule a presentation for your group on a variety of environmental issues.**



Bill Schuster with DCSWCD and CWAC Director Dean Hoegger speak to participants of the Training to Monitor Manure Spreading

Training to Monitor Manure Spreading

On March 4, CWAC sponsored a citizen training to monitor manure spreading. Participants learned about nutrient management plans and what the role and authority is of local soil and water conservation departments and the Wisconsin Department of Natural Resources in issuing and enforcing the plans. The workshop gave participants skills needed to effectively monitor manure spreading and report

possible violations. Midwest Environmental Advocates and the Door County Soil and Water Conservation Department (DCSWCD) were the presenters. DCSWCD also presented a sample land lease which gives land owners options for prohibiting certain practices. CWAC can e-mail the sample lease to interested parties.

Prior to the training, CWAC Director Dean Hoegger spoke on WDOR radio about the training. 35 people attended the training including rural residents, local government officials, and area farmers.

Dangers of Spraying Manure Presentations

CWAC staff and board members made presentations on the dangers of spraying manure and other agricultural wastes to one additional town board and continued to testify in towns still deliberating on an ordinance in Brown, Door, and Kewaunee Counties. The presentations are available to groups and town boards. (See below: *CWAC Supports Residents' Efforts to Ban Manure Spraying*.)

The Price of Sand

The DVD about the effects of frac sand mining in western Wisconsin is available for checkout or we can present it to your group.

Fluoridegate

This film details the health concerns from fluoridation of drinking water. It is available for checkout or a presentation with a guided discussion. This film was shown during the February "Dinner and a Movie" at the CWAC office.

Environmental Links to Cancer and Human Health

Sandra Steingraber's DVD, *Living Downstream*, is available for checkout or we can present it to your group with a discussion. Steingraber's books are also available at our office for purchase or for loan.

Protecting the Waters of Northeast Wisconsin Presentation

We can provide this slide presentation to your group. It describes what CWAC does and what the public can do under state and federal laws. Several presentations are scheduled for this spring. (See *Events*.)

Zero Waste and Food Waste Presentations

These slide shows can be tailored to your groups interests to focus on what other communities on the road to zero waste are doing, the latest efforts for keeping food waste from landfills, and an update on local efforts.

School Presentations

We can tailor a presentation to meet the needs and interests of students including environmental problem solving, the history of the Fox River, the hazards of burn barrels, the zero waste movement, and current local issues. In February, Director Dean Hoegger presented *Communities on the Road to Zero Waste* and in March presented *Protecting the Waters of Northeast Wisconsin* to students at John Dewey High School in Green Bay. Hoegger will present *Air Defenders* to students at Webster Stanley Middle School in Oshkosh in April.

Weekly CWAC Updates

Each Monday we e-mail a weekly update of actions, alerts, events, and the latest information on topics of concern. If you are a member with an e-mail address and you are not getting the CWAC Weekly Update, check your spam folder before e-mailing us to request to be put on the mailing list, sent Bcc to protect your privacy.



CWAC'S ACTIONS IN THE COMMUNITY

CWAC SUPPORTS RESIDENTS' EFFORTS TO BAN MANURE SPRAYING

As reported in the *Fall 2014 CWAC Newsletter*, CWAC moved beyond educating the community about the health risks of spraying manure to helping residents lobby their town boards to pass bans on manure spraying. **Seeking bans at the town level has become the immediate goal and a major focus of our efforts this fall and winter.**

To educate area residents on the issue, CWAC created a billboard which directs readers to our website. The billboard was up in southern Door County for the months of October thru December and was then moved to southern Brown County. **We are now seeking donors who will pay monthly rent for the sign which can be placed in your county in April. Your donation may be tax-deductible.**

The Door County Towns of Brussels, Gardner, Liberty Grove, Sevastopol, and Sturgeon Bay passed a ban on manure spraying and Union is considering a ban. The Town of Scott in Brown County passed a ban after six meetings and much effort by CWAC staff and board members. In Kewaunee County, the Town of West Kewaunee passed a ban, the Town of Lincoln changed their resolution to a ban ordinance, and in the Town of Ahnapee a ban ordinance is being drafted.

However, in the Door County Town of Forestville, a resident presented nearly 50 signatures opposing manure spraying to the town board at the February meeting. In the past, this board wrongly informed residents that the county and state will protect them. Now, according to the Door County Advocate, they are claiming that there is a new <magical> process being developed at an Ahnapee farm

that will kill all pathogens in manure. We have found no experts in the field including an official from the Kewaunee County Soil and Water Department that support this claim.

Unfortunately, the town of Nasewaunee has also resisted banning manure spraying, dismissing it as a concern that is not applicable to the town.

>>This practice can also be a threat in your town as well. Contact us to help bring the issue to your town or village supervisors.<<

COMMENTING AT HEARINGS AND TO MEDIA

One important function of CWAC's role in the community is to be prepared to comment on issues related to our mission to protect human health and the environment. In this quarter, CWAC signed on to several letters of concern, and commented for a TV 11 story on the potential threat to the Green Bay fishery from cleaning and health products containing plastic scrubbing beads.

CWAC OFFICE PROVIDES OPPORTUNITIES FOR INTERNS, VOLUNTEERS, AND COMMUNITY EVENTS

The office has provided us an excellent meeting and workspace. Our one year lease at 2100 Riverside Drive, Green Bay is set to expire at the end of May. As much as we like it here, unless we have a renewal offer soon, we will be looking for a new location in the Green Bay area. In the past, we have desired a space that we could share with one or more other organizations. This past year, we shared our space with sound massage therapist Chris Zimonick, which significantly reduced our rent.

Please contact us if you know of an office space that may be available, at a lower than market cost. Read below to find out more about Chris's work.



Silent Auction, Dinner & Dance for the Environment

Saturday, April 11 @ 5:00 p.m.

Our annual membership meeting and dinner will be held at the Riverside Ballroom at 1560 Main St., Green Bay, followed by the dance at 7:30. There will Door Prizes, a Silent Auction and Zoomie & the Dynamics will play for the dance. *Please consider ordering a block of tickets to sell to friends. Paid members are eligible for door prizes at the dinner!*

Ticket Order Form for \$20 Advance Tickets (Please place your order by Saturday, April 4)

of tickets _____ @ \$20 each for a total of \$ _____

Send tickets to (name/address):

Please indicate the # of your dinner preference(s):

() Chicken Breast (Gluten-free)

() Vegetarian Portabella (Gluten-free)

Phone #: _____ (in case we have a question)

_____ Yes, I have an item for the silent art auction/door prizes. I will bring it by 5:00 or call Dean at 495-5127 for prior pickup.

Please include payment with your order.

**Checks payable to: Clean Water Action Council
P.O. Box 9144, Green Bay, WI 54308**

Dance for the Environment
FUNDRAISER

Saturday, April 11

Social: 5:00
Silent Auction: 5:00 - 8:30
Dinner: 6:00
Program: 7:00
Dance: 7:30 - 10:00

Zoomie & the Dynamics
50s & 60s Dance Music

DOOR PRIZES!

Riverside Ballroom
1560 Main St., Green Bay

PURCHASE TICKETS ONLINE AT:
www.cleanwateractioncouncil.org

A fundraiser for
The Clean Water Action Council
Your environmental advocacy group in Northeast Wisconsin



For free posters,
please e-mail us at contact@cleanwateractioncouncil.org
or call Dean @ 920-495-5127

THE HIGH HEART PROJECT SHARES OFFICE WITH CWAC, FROM CHRIS ZIMONICK

"The sound of the singing bowl touches our innermost soul and brings it into vibration. The sound breaks tension, mobilizes self-healing forces, and sets free creative energies."



Chris Zimonick is a certified Sound Massage Therapist. She incorporates the use of Sound Massage Bowls. The bowls are quite different from the ancient singing bowls of Tibet. Their gentle vibrations are specifically attuned to induce a state of direct

cellular resonance, one that evokes feelings of greater peace and well-being. They are the fundamental tools of a Sound Massage therapist who uses them to physically apply a full spectrum of vibrational frequencies to the body.

The CWAC Banquet to feature Locally Sourced Foods and the return of Zoomie and the Dynamics!

We were very pleased with the willingness of Riverside Ballroom owner, Ken Tedford, to work with us and with Fred Depies from Trust Local Foods, to bring many locally sourced foods to the banquet this year-- and to keep the dinner price the same as last year. With the exception of the chicken breast (\$14 each for locally sourced), all of the food will be from local growers, and for the most part, organically grown. Included will be assorted greens, garlic mashed potatoes, cooked carrots, and for the vegetarians, a roasted portabella mushroom. All entrees will be prepared gluten free and the vegetarian choice will be free of all animal products.

CWAC member Lou Seiler has brought us great musical performances in the past! This year, he brings to the stage the return of Zoomie and the Dynamics who played two years ago. They will provide great entertainment as well as nice mix of dance tunes

Order your tickets today for the April 11, Dinner, Dance, and Silent Auction. Contact us for special group rates and opportunities for ticket sellers.

<< Please see the ticket order form on page 12 <<

This form of energy therapy, established in Germany by Peter Hess, has been shown to affect a measurable response in bones, organs and tissues as well as brainwaves. The activity has a profound effect on the way a person feels, functions and reacts by inducing a steady state of calm, deep, restorative, relaxation and a sense of well-being—a form of physical therapy that tends to boost the function of the immune system as well. Emotional and mental difficulties are also frequently acknowledged and resolved. Sound vibration therapy can help to restore balance and provide a feeling of inner strength, harmony and increased vitality.

If you are in pain or feel out of balance, it is often caused by a block in the subtle energy system in one or more areas of the body, in addition to any physiological issues. A sound massage therapist matches specific frequencies to body states, using tools, technique and intention in order to release pain and assist healing in body, mind and spirit. Sound Massage bowls are placed on or close to a fully clothed body and tapped gently with a felt mallet. The gentle vibrations induce a cellular resonance that evokes a feeling of relaxation and well-being.

1 - 75 minute session is \$75, 3 session package is \$200

Clean Water Members: 1 - 75 minute session \$75

which includes a \$15 Clean Water donation.

Find more information at www.highheartproject.com

To schedule a session, please contact Chris @ 920.819.1341

or Chris@highheartproject.com

It's Time to Renew Your Membership for 2015!



**Please help us continue to take action
on your behalf to protect the environment
and human health by renewing your
membership. If your newsletter label or
e-mail notice does not indicate you paid your
membership in 2014, please consider a more
generous donation for 2015.**

**Our membership donations make up a
significant part of our budget.**

*(See pg. 19 for our membership form or register online
at cleanwateractioncouncil.org)*

Sawyer Creek Watershed Projects Completed with Utica Settlement

By Tom Davies, Director, Chad Casper, Resource Conservationist and Melanie Leet, Conservation Technician for Winnebago Co.

In August, 2010 the Winnebago County Land and Water Conservation Department (LWCD) received a \$25,000 award through the Clean Water Action Council (CWAC) to cost-share the installation of water quality improvement practices in the Sawyer Creek Watershed (SCW) in Winnebago County.

In September, 2010 a letter was sent to the landowners within the SCW informing them of an opportunity to receive cost-sharing for the installation of certain conservation practices on their land.

In 2011 three unique projects were identified, surveyed and designed, and contracted with the landowners. Landowners were provided 70% cost-sharing for their projects. In 2011-2014 the projects were laid out, constructed according to design and cost-shared. The total cost of the projects was \$35,714. All of the \$25,000 was paid out to the landowners as cost-sharing. The three projects are:

The Hetzer Shoreline Protection and Restoration Project

Approximately 80' of Sawyer Creek streambank was experiencing moderate to high rates of erosion. In 2012, the vertical banks were reshaped to 2:1 side slopes. Riprap was then installed to the proper elevation according to the design specifications. This will protect the streambank from further erosion. Also, native plant plugs were installed in



the uplands above the riprap. The native plantings help improve water quality along with providing wildlife habitat. City of Oshkosh was a partner in this project. Total cost of this project was \$4,818.90. \$3,373.23 of Sawyer Creek funds were used for the 70% cost sharing to the landowner.

The Radloff Grassed Waterway & Machinery Crossing

Radloff's waterway on his main farm was experiencing a large amount of "out of bank" flow. This occurred because the waterway had filled with sediment through the years and it could no longer handle the volume of water from the large 687 acre drainage area. It was eroding huge amounts



of sediment from the fields and depositing it directly into Sawyer Creek. We increased capacity by excavating and re-grading his entire 2,417' grassed waterway in two stages.

The first stage was completed in 2012 and the second stage completed in 2014. Rock was used in two places along the waterway to prevent the heavy flows from scouring the side slopes and causing the water to jump out of its banks again. This rock should permanently protect these areas. A machinery crossing was also installed to protect the waterway from damage. This allows the farmer to cross the channel at a protected stable area. Total cost of this project was \$18,873.44.

\$13,211.41 of Sawyer Creek funds were used for the 70% cost sharing to the landowner.

Our thanks to CWAC and the landowners for their contributions and cooperation.



The Gerlach Waterway, Wetland Restoration and Buffer Project

The existing waterway was inadequately sized and needed to be re-graded to allow for better drainage and to prevent erosion. The project was sent out on bid and the construction was supervised by the Winnebago County LWCD in the fall of 2011. There was 1,785 ft. of waterway installed according to the proper design specifications. A goal was to enhance the existing cropland by installing two ½ acre wetland scrapes in marginal cropland. In 2012, there

was a 150' vegetated buffer installed on each side of the entire waterway and around both ½ acre wetland scrapes. The buffers were accomplished via a 15 year agreement in the Conservation Reserve Enhancement Program (CREP). These practices will not only improve water quality by filtering out a portion of the pollutants coming off the cropped fields, but will also provide additional wildlife habitat. Total cost of this project was \$12,021.94. \$8,415.35 of Sawyer Creek funds were used for the 70% cost sharing to the landowner.

Tips for Monitoring Manure Spreading

The following was developed from the Nutrient Management Permit Monitoring Workshop presented by the Door Soil and Water County Conservation Department and Midwest Environmental Advocates and hosted by Clean Water Action Council on 3/4/15.

1. Nutrient management plans (NMP) are written to allow a maximum amount of manure to be applied to a field. On a one acre field, that could be as much as 18,000 gallons of manure supplied by 3 semis hauling 6,000 gallons each. That could equal as many as 120 semi loads on a 40 acre field.

2. Manure should not be spread when the ground is already saturated and has standing water. This may be a reportable violation.

3. Generally, liquid manure should not be spread on frozen or snow covered ground between 2/1 and 3/31, but there are exceptions.

4. Manure should not be spread before a significant predicted rainfall. If a predicted rainfall of one inch occurs after manure spreading, it may be a reportable violation, especially when other violations noted below would apply.

5. Manure should not leave the field and flow into ditches or waterways and if does, it is a reportable violation.

6. Manure is not allowed to pool and remain standing. This may be a reportable violation.

7. A spill from a tanker on the roadway and running into adjacent ditches is a reportable violation.

8. Manure coming from a Concentrated Animal Feeding Operation or CAFO (operations with more than 1000 animal units or otherwise placed in this category due to history of non-compliance) must not be spread on land with less than 24 inches of top soil, even when the manure is stored in a small farm storage facility.

9. When observing possible violations, consider the following:

a. Note name of hauler on truck or other equipment and location using nearest road intersection and compass direction from that point.

b. Take photo of violation when possible and do so from public property, such as a roadway. When possible, show the date on the photo. Take several photos from as close as possible, and then further away to show a landmark. Know that

some haulers/farmers may take pictures of you taking pictures.

c. Call in possible violations to the Soil and Water Conservation Department and the Wisconsin Department of Natural Resources at 1-800-TIP-WDNR (800-847-9367).

d. If you do not get results, call CWAC at 920-421-8885 or MEA at 608-251-5047.

e. Whenever possible, have a conversation with the violator to express your concern.

10. Where violations continue, you should discuss your concern with the SWCD office officials or the DNR to find out the status of your complaint. If you are not satisfied with the way the violations are being addressed, consult with MEA or another law firm, or contact CWAC for support.

Prepared by CWAC Director Dean Hoegger on 8/3/15.



Meet Our New Interns!



Beth Alswager is a senior at the University of Wisconsin Green Bay and is majoring in Integrative Leadership Studies with a minor in Public Administration, and is also a representative in the student senate. She is pursuing a new career after twelve years as a hairdresser,

most recently at Elements Salon in Howard. Beth has always had a deep concern for the environment and has worked on organic farms in California. More recently she has been a volunteer for Green Bay Animal Rescue. She enjoys many hobbies including playing guitar, traveling, going to concerts, and continues to be involved in the cosmetology field doing hair and make-up for weddings. Beth hopes to continue volunteering and representing the Clean Water Action Council in her future endeavours.



William Isings is a senior at UW-Green Bay, majoring in Business Administration and a certification in Sustainability and Business through the Environmental Management and Business Institute Program. William grew up in Sturgeon

Bay and spent most of his summer's enjoying boating and kayaking out on the water. William spent most of his weekends on family camping trips where he would bike and hike across the parks. William is a full time student who enjoys working at build sites for Habitat for Humanity on weekends. He is excited to graduate and pursue his interests in renewable energies and sustainable city growth.

MARK YOUR CALENDAR! **Meetings, Events and Happenings**

✿ **Tuesday, March 17, 10:00 a.m. - 12:00 p.m.**

Getting It Right: Organic Waste Stream Management for Rural Communities and Small Farms

Winnebago County - Land and Water Conservation
James P. Coughlin Center, 625 County Road Y, Oshkosh

✿ **Thursday, March 19, 10:00 a.m. - 12:00 p.m.**

Getting It Right: Organic Waste Stream Management for Rural Communities and Small Farms

Door County - Crossroads at Big Creek
Collins Learning Center, 2041 Michigan St., Sturgeon Bay

Are you interested in a better way to manage organic waste? Is anaerobic digestion a viable alternative for your small farm? This session will discuss the concept of biodigestion, the technology used for small-scale farms along with sustainability and financial viability information. *To register or for more information, visit uwosh.edu/eric or call 920-424-3148*

✿ **Tuesday, March 24, 6:00 p.m. - 7:30 p.m.**

Dinner and a Movie at the CWAC Office, GMO OMG

2100 Riverside Drive, Green Bay

Join us for an evening of education and fun. We will be watching GMO OMG, a film by Jeremy Seifert, a documentary on how GMOs affect our children, the health of the planet, and our freedom of choice? Visit www.gmofilm.com for more information on the movie and to watch the trailer. *Please RSVP for this movie and a GMO free meal. RSVP at 920-421-8885. We hope to see you here!*

✿ **Monday, April 20, 7:30 a.m. - 5:00 p.m.**

Nelson Institute Earth Day Conference

Monona Terrace Community and Convention Center,
1 John Nolen Dr., Madison

This year's convention is entitled *Hard Science, Tough Choices*. Speakers and panels will be examining how to answer the many environmental concerns involved in decision-making for governments, businesses, communities and families. A full day of learning and discussion explores the latest science, perspectives and possibilities presented by our rapidly changing planet – featuring a keynote address by renowned astrophysicist Neil deGrasse Tyson.

For more information go to:

<http://www.nelson.wisc.edu/events/earth-day/>

✿ **Thursday, April 23, 8:00 a.m. - 4:30 p.m.**

Northwoods Research Summit

Treehaven UWSP, W2540 Pickerel Creek Rd., Tomahawk

The event *Northwoods Gold: Protecting Our Water Health* brings together leaders, citizens and researchers from across our water rich area to discuss the scientific, cultural, and economic value of our most precious natural resource. The goal of this summit is to exchange knowledge, foster relationships, and promote actions to protect our waters for future generations. *Admission is \$15, for more information about Treehaven events go to: <http://www.uwsp.edu/cnr-ap/treehaven/Pages/publicPrograms.aspx>*

✿ **Sunday, April 26, 11:00 a.m. - 3:00 p.m.**

Water Wonderful World 2015

UW-Baraboo/Sauk County, 1006 Connie Road, Baraboo

This Sauk County Earth Week event includes a plethora of exhibits, mini-workshops, kids' activity stations, live music, and an art

competition. The workshops are about different water related topics, including soil erosion prevention and boat care to prevent spreading invasive species. The art competition is all about art created from reused, recycled, and repurposed items. *Admission is free. For more information go to: <http://saukcountyearthday.org/earthday>*

✿ **Saturday, May 9, 8:00 a.m. - 2:30 p.m.**

Door County Climate Change Forum

Stone Harbor Resort, 107 N. 1st Avenue, Sturgeon Bay
The CWAC is co-sponsoring this forum on climate change and how it affects us in northeast Wisconsin. Guest speakers who are experts in the field will be discussing effects on forests, bird populations, agriculture, and the Great Lakes.

✿ **Friday - Saturday, June 5-6**

Friday 6:30 p.m. - 9:00 p.m. & Saturday 10:00 a.m. - 4:00 p.m.

2015 Sustainable Living Fair

Crossroads at Big Creek, 2041 Michigan St., Sturgeon Bay

The Fair is being sponsored by the Climate Change Coalition of Door County, Sustain Door, Clean Water Action Council, Door Property Owners, Door County Environmental Council, and Lakeshore Natural Resource Partnership. *Contact Jenn Hansmann, (920) 627-1799, Jenn@LNRP.org, if you'd like to reserve a booth or for more information. A call to vendors for the 2015 Sustainable Living Fair at Crossroads at Big Creek in Sturgeon Bay. Contact Jenn Hansmann, information above.*

✿ **Friday - Sunday, June 19-21**

Midwest Renewable Energy Association Energy Fair

Renew the Earth Institute, 7558 Deer Road, Custer, WI

This year marks the 26th annual Energy Fair which is the longest running event of its kind in the nation. Join the over 15,000 people who attend each year in learning about the latest news about renewable energy, energy efficiency, and sustainable living! There are over two hundred different tents and workshops to choose from such as compost making, cheese making, solar gardens, year round gardening, and much more!

Tickets start at \$15 per day or \$35 for a weekend pass for adults. Special prices are available for seniors and children. For more information go to <https://www.midwestrenew.org/energyfair>

Upcoming Weekly Indoor Farmer's Markets

Saturday, March 7 & 28, 8:00 a.m. – 12:00 p.m.

The New Leaf Winter Farmers Market

KI Center, 333 Main St, Green Bay, WI 54301

Saturdays, Nov. 1 - April 25, 9:00 a.m. – 12:30 p.m.

Oshkosh Saturday Farmers Market, Indoor Winter Market

Merrill Middle School, Multi-Purpose Rm., 108 W. New York Ave., Oshkosh. CWAC will have an exhibit on March 7 compliments of the Market.

Saturdays, Nov. 1 - May 30, 9:00 a.m. - 12:30 p.m.

Downtown Appleton Farm inside City Center Plaza

10 E. College Avenue, Appleton

1st & 3rd Saturdays thru early May, 9:00 a.m. – 1:00 a.m.

Sheboygan Winter Farmers Market

310 Bluff Avenue, Sheboygan

Join or Renew Your Membership to Clean Water Action Council for 2015!

☐ Renewal ☐ New Member Date _____

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

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

() Non-member donation of \$ _____ for _____

() Other \$ _____

Name(s) _____

Address _____

City _____ State _____ Zip _____

Phone _____

E-Mail _____

Receive FREE newsletters with each membership.

Please choose one...

☐ Printed version ☐ E-mailed version

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

☐ the newsletter ☐ events ☐ work at office ☐ mailings

☐ joining or leading one of the committees ☐ other

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

All contributions are tax-deductible. Thank you!

COMMITTEES

Non-Point Pollution: Charles Frisk

Special Events: Bev Watkins

Public Health: Dean Hoegger

Membership, Finance and Fund-raising: John Hermanson

Kewaunee C.A.R.E.S.: Lynn Utesch

Phone numbers are listed under Board Members



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

www.cleanwateractioncouncil.org

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

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Clean Water Action Council
of Northeast Wisconsin
P. O. Box 9144
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of Northeast Wisconsin

Silent Auction, Dinner & Dance for the Environment

Saturday, April 11

@ 5:00 p.m.

TICKETS ON SALE NOW!

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