

YAHARA CLEAN COMPACT

A vision shared by our community to do more for the Yahara lakes (PG. 2)

CONSERVATION FARMING

Farmers work to conserve land while maximizing profitability (PG. 6)



View of Madison's Isthmus between Lake Monona & Lake Mendota
Photo courtesy of Robert Bertera

PROGRESS IN A PANDEMIC

A NOTE FROM EXECUTIVE DIRECTOR JAMES TYE ON PROGRESS FOR OUR LAKES

As the leaves start to change and the temperature begins to cool, we can look back on one of the strangest, and at times most difficult, summers any of us have experienced. We added new sayings to our everyday vocabulary like "socially distanced," "virtual event," and "self-quarantine." All of these changes made it difficult not only for Clean Lakes Alliance, but for every business, nonprofit, and household across the globe. But, we kept moving forward.

I'm excited that even in the face of adversity, Clean Lakes Alliance found a way to make progress. Our June Loop the Lake Bike Ride, which typically brings 900 people to Olbrich Park, had the same number of participants register to ride their own course. Our monthly Yahara Lakes 101 Science Café talks, usually held at The Edgewater, moved to a live, online format and continued to draw an average of 100 attendees. And, our dedicated crew of 85 volunteer water quality monitors continued to test the lakes and upload their data to our free LakeForecast app throughout the summer.

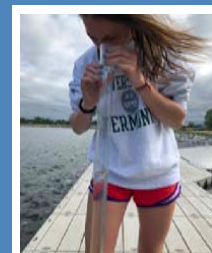
Still, we are facing an uphill battle. With the good came the not-so-good. Donation dollars are down significantly which has caused us to make difficult decisions on future programs

and lake improvement projects. We are thankful to everyone who has continued to fund our work, but we need more help in order to protect programs and projects that keep our lakes at the center of the community.

This year, the lakes and lake parks were a huge community resource as we all stayed closer to home. As we head into the winter months, I hope everyone is able to get out and use the lakes a few more times. And when the lakes freeze, I hope you'll continue to enjoy them as our city's largest parks! I'm confident better days are on the horizon and I'm excited about the potential we have as a community to improve our lakes for generations to come.

Read more!

**VOLUNTEERS MONITOR
WATER QUALITY ON OUR
YAHARA LAKES (PG. 4)**





Learn more about the Yahara CLEAN Compact and how it will help our lakes:
cleanlakesalliance.org/yahara-clean

BEYOND THE TERRACE

UW-MADISON'S LOVE OF THE LAKES

A letter from the University of Wisconsin-Madison about the Yahara CLEAN Compact

Like everything else this year, visiting the Memorial Union Terrace feels a little different. Yet as we sit apart, looking over Lake Mendota, it serves as a reminder that the physical distance between us is a sign of strength. We are reminded of what we can accomplish when we have the resolve to tackle a challenge, and Clean Lakes Alliance is evidence of that. By bringing together a remarkable union of business, government, and education sectors, Clean Lakes Alliance has created a passionate and committed coalition dedicated to restoring our lakes. The University of Wisconsin-Madison is just one of 19 community partners and collaborators in the Yahara CLEAN Compact, and we are honored to be a part of such a purposed and principled undertaking.

This Compact is just one of many community efforts to address the health of the Yahara lakes. Like in many communities around the state, the quality and health of our watershed have disintegrated due to significant phosphorus inputs over time, affecting ecosystem function and recreational activities. For the past 150 years, UW-Madison has been researching and supporting the health of our lakes, and our researchers also support state and federal initiatives like the Freshwater Collaborative and the National Oceanic and Atmospheric Administration's Sea Grant. We are proud to leverage the expertise and passion of our scientists and students to further support the water community created by groups like Clean Lakes Alliance. The Yahara lakes are quite literally our backyard, and our affinity for them runs deep.

"It is a vision that inspires us to do more, do it with urgency, do it with respect, and do it together."

UW-Madison

UW-Madison is host to nearly 4.5 miles of shoreline along Lake Mendota, and the campus is situated squarely in the Yahara Watershed. We have the unique distinction of having one of the nation's largest collegiate inland fleets, something not many universities can claim. Whether our students compete with the Fishing Team or research phosphorous inputs and stream buffers, the lakes are as integral to the essence of the university as they are to the health of our communities.

This watershed has been the home of the Ho-Chunk Nation for thousands of years before the campus was established as the state's land-grant university. Their tribal knowledge and memory of the lakes helps us to create a clear objective and purpose for the work ahead of us. Our Wisconsin Idea Seminar series often begins with Bill Quackenbush, the Ho-

Chunk Tribal Historic Preservation Officer, taking some of our newest faculty to Picnic Point. He asks the participants to close their eyes and then he shares what the lakes looked and sounded like prior to European occupation. He describes white sandy shores, clear nights when you could see village campfires across the lake and hear drums and song over the crystal-clear waters.

It is a breathtaking ancestral memory, and yet it is so much more. That remembrance is also a vision. A vision shared by Clean Lakes Alliance and all of the participants in the Yahara CLEAN Compact. It is a vision that inspires us to do more, do it with urgency, do it with respect, and do it together.



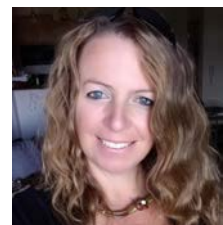
Alan Fish

Alan Fish, Associate Vice Chancellor
UW Facilities Planning and Management

All Together and All Ways Forward,

Missy Nergard

Missy Nergard, Director
UW Office of Sustainability





HELP *the* LAKES *at* HOME

VISIT CLEANLAKESALLIANCE.ORG/TOPI0 TO TELL US WHAT YOU DID TO HELP OUR LAKES

On Earth Day, along with 10 community partners, Clean Lakes Alliance launched a project to create a more resilient landscape throughout the Yahara Watershed. The project shares 10 simple actions Greater Madison residents can take to help the land and lakes. The 10 actions require little time and money, but can result in a significant cumulative impact to help our waters.

We have heard from many of you about the great work you have accomplished for our Yahara waters. From Middleton to Madison to Monona to McFarland and beyond, you are making adjustments at your home to help our lakes. But we are still looking to hear about more of your hard work. Tell us what actions you have taken to help the lakes from your home. And don't forget to send in your photos - we will use this information to help inspire others to help our lakes too!

Share your projects and photos: cleanlakesalliance.org/top10-survey

Thank you for sharing your photos and inspiring others!



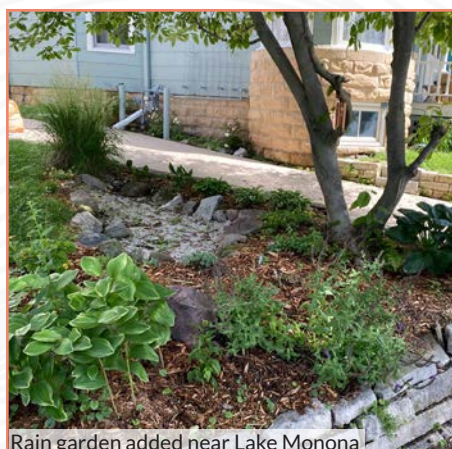
Rain barrels installed in Madison



Downspouts redirected, native plantings added



New rain garden near a sidewalk prevents runoff



Rain garden added near Lake Monona

SMALL ACTIONS FOR BIG IMPACT

- Plant native and diverse vegetation
- Start home composting
- Create a rain garden
- Install a rain barrel
- Redirect downspouts
- Plant home food gardens
- Pick up pet waste & litter
- Inspire a friend or neighbor

HELP THIS FALL & WINTER

RAKE FOR LEAF-FREE STREETS

Leaves contain phosphorus. When left in the street, stormwater passes through leaves like a teabag and brings the phosphorus-rich water into the storm sewer. In our watershed, all storm sewers deliver untreated water directly to our lakes. Raking leaves from the street edge (three feet from the curb) and onto lawns will help fertilize the grass and reduce cyanobacteria (blue-green algae) blooms in our lakes.

REDUCE SALT USE

Winter salt runoff into our lakes can be toxic to aquatic plants and animals. Reducing salt use does not need to compromise public safety. By shoveling snow, using sand, and limiting salt use, you can be lake friendly and safe at the same time. For more information, visit wisaltwise.com.

PROGRAM FUNDING PROVIDED BY:





View from Mark Jung's pier on Lake Waubesa in the springtime

A LIFETIME OF LAKE MONITORING

By Mark Jung, Clean Lakes Alliance Volunteer Water Quality Monitor on Lake Waubesa

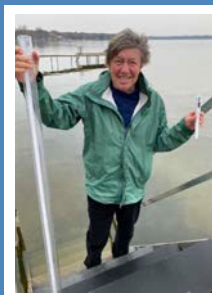
I grew up one block from the Yahara River in Monona, Wisconsin. The nearby river was rimmed with narrow isthmus paths and wetlands that provided daily entertainment. Eventually, however, these areas would be filled to build houses and apartment complexes. Even as a young boy, I thought that filling in my precious "swamp" was a travesty. To make matters worse, Lake Waubesa in the 1950s was trying desperately to recover from years of semi-treated effluent from upstream neighborhoods. The misguided notion of the time was, "It's only fertilizer, what could that hurt?" Well, that "fertilizer" choked Waubesa with weeds and putrid blue-green algae so thick that you could nearly walk across it. Fortunately, in the late 1950s, treated effluent was diverted to Bad Fish Creek where it eventually converged on the Mississippi River where it "could do no harm." It has taken a lifetime for Waubesa to improve to its present state.

I have been monitoring Lake Waubesa since childhood in one form or another. I became interested in a more academic way after auditing a Limnology class at UW-Madison. All my life I had watched water clarity wax and wane, but I never fully

understood my observations until I learned about Daphnia, phosphorus, and runoff. Fortunately, around that time I heard about Clean Lakes Alliance and its efforts to track lake conditions through water quality monitoring. It was a perfect match. I got answers to questions I had for years and helped the community at the same time. Much more than that, Clean Lakes Alliance taught me what I can do to help improve the community's most important economic and aesthetic feature.

I love our lakes and everything about them. I even love the pungent smell of decaying algae...in small doses. I learned how to waterski on Lake Monona as an eight year old and watched my son, as a young man, ski with the Mad-City Ski Team. My days of waterskiing have been replaced with the serenity of a morning sunrise across the lake and the red glow of a sunset shared with my wife. Through these simple acts, I've realized we are mandated to protect our lakes for the generations to come. We must protect them so that anyone can experience the joy of seeing a fish or frog or turtle for the first time or feel the exhilaration of waterskiing or the gentle lap of water around their ankles.

THANK YOU TO OUR 85 VOLUNTEER MONITORS!



DOWNLOAD THE FREE
LAKEFORECAST APP FOR
APPLE OR
ANDROID - LEARN ABOUT
WATER QUALITY
ON THE YAHARA LAKES

WE NEED YOUR HELP

2020 GOAL
\$537,000

THIS TIME
LAST YEAR
\$400,000

CURRENT
\$282,000



While Clean Lakes Alliance has made a lot of progress as an organization in the face of many challenges, we are still coming up short this year.

The thermometer shows what we planned to raise through Friends and Lake Partner donations, and where we are currently sitting. As you can see, **not only are we \$255,000 short – but we're also about \$118,000 behind where we were at this time last year.** That's a large gap we need to close.

The good news is we still have time to make up the gap in order to continue funding educational programming, water quality monitoring, and lake improvement projects. If you have already donated this year - THANK YOU!

If you haven't renewed your donation, we hope you will use the envelope folded into this newsletter to help us continue fighting for clean and healthy lakes. You can also donate online at cleanlakesalliance.org/donate.

Without additional support, we will not be able to fund all of the great programs and resources that help make our lakes a top priority.



Johnson Financial Group Renew the Blue Volunteer Day



Lake education



Lake Mendota shoreline cleanup

(Photos taken pre-COVID-19)

Pollinator habitat planted on marginally productive field corner



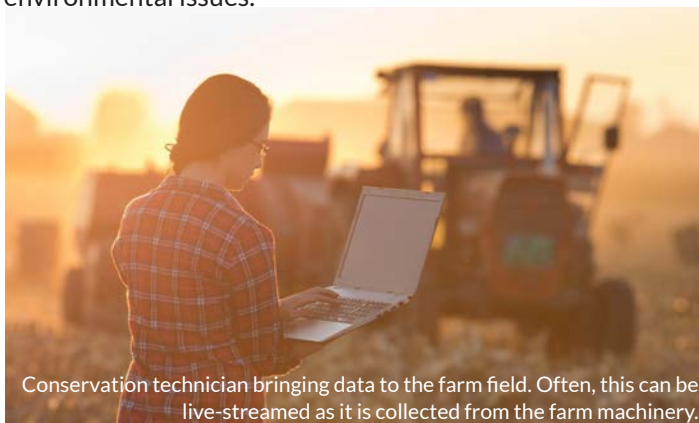
FARM THE BEST, CONSERVE THE REST

A MESSAGE ABOUT PRECISION AGRICULTURE AND CONSERVATION EFFORTS

By Marty Moses, Wisconsin State Coordinator for Pheasants Forever

Technology is bringing a new vibe to conservation efforts offered to farmers. Instead of sweeping mandates, rules, and regulations, a new data-driven method is being used to design efficient and cost-effective agricultural sustainability solutions. This precision ag and conservation approach is allowing projects to be targeted to the right place and at the right scale. In turn, farmers can achieve maximum economic and environmental impact.

In Wisconsin, Pheasants Forever is leading this charge and has recently partnered with Clean Lakes Alliance to advance this approach locally. Pheasants Forever is a national nonprofit conservation organization focused on enhancing wildlife habitat, environmental quality, and working lands sustainability. While our members are pheasant hunting enthusiasts, our more than 150 employees are biologists and conservation specialists. Our team provides customized assistance to farmers and landowners to find solutions to environmental issues.



Conservation technician bringing data to the farm field. Often, this can be live-streamed as it is collected from the farm machinery.

Wisconsin farmers want to do right for their community, their local environment, and themselves. But water quality, as it relates to agricultural runoff such as nitrate and phosphorus, is a serious issue in Wisconsin. Not only do these nutrients affect drinking water and public health, but they can cause algal blooms leading to reduced oxygen, harming plant and animal life. Many farmers are looking for ways to avoid or correct these negative impacts.

Not only are public health and environmental quality concerns for Wisconsin farmers, many also face a dire economic reality. Climate extremes can influence field conditions, and political turbulence can create unstable market conditions—both of which drive economic threats. While farms struggle to stay economically viable, there could be a motivation to focus solely on crop yield. This can equate to planting and maintaining less fruitful areas of the field, even though areas like wet depressions, floodplains, or shaded tree lines tend to be less productive. Farmers find themselves in a difficult place when balancing environmental health and economics.

Advanced ag technologies and precision ag data, all collected by equipment on board farm machinery, can offer a solution. But the specialized technical skills needed to manage and interpret the data can be overwhelming. That is where Pheasants Forever steps in with their Precision Ag and Conservation Specialists. These specialists will use a farmer's own harvest records along with their input expenses. The data will help specialists review budgets, create crop yield and return on investment (ROI) maps, and conduct a whole farm analysis.

The specialists can then help farmers identify areas within their fields that are environmentally sensitive and that lose money in spite of returning a harvest, and can recommend different management options (such as seeding rates, varieties, or nutrient management). They can also suggest conservation practices (such as no-till, cover crops, or conservation rental programs). The suggested adjustments can increase the farmer's ROI and at the same time address environmental quality concerns.

Pheasants Forever, Clean Lakes Alliance, the Natural Resources Foundation of Wisconsin, the American Society of Agronomy, and the USDA Natural Resources Conservation Service will partner together in support of a Precision Ag and Conservation Specialist. The specialist will serve the Madison area and the greater southern region of Wisconsin for five years beginning in fall of 2020.

THE STATE OF OUR YAHARA LAKES

A LOOK BACK AT LAKE DATA, AND WHAT CLOSED OUR BEACHES

Every year, Clean Lakes Alliance releases the *State of the Lakes Report* to not only show the impact of phosphorus (which generates algae and cyanobacteria) on our lakes, but also to recap community projects and programs that make our lakes better. This year's report, which looks at data from 2019, was released in June and can be read in its entirety at cleanlakesalliance.org/state-of-the-lakes.

Each lake has a unique story, but overall the report showed it was another challenging year for our lakes. Water clarity ranked "good" and phosphorus levels ranked "fair" for most of the Yahara River Watershed's five lakes, according to the Wisconsin Department of Natural Resources criteria.

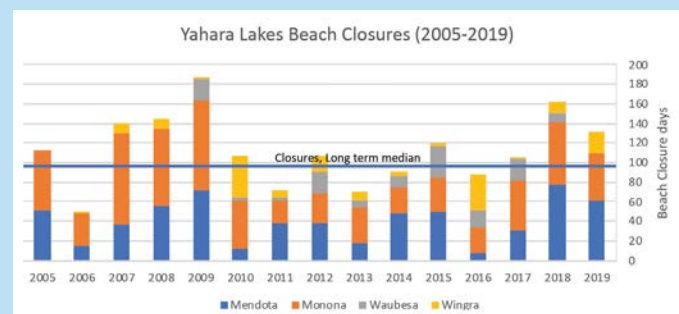
Overall, phosphorus loading was 40% higher in 2019 than in 2018 when we had massive flooding. Large runoff events, especially in the late winter when the ground was frozen, contributed to the highest annual phosphorus loading since the 1990s. Additionally, 2019 also saw 146 days of beach closures, or 39 more closure days than the 2010-2019 median. Cyanobacteria blooms were the primary cause of the beach closures, and were likely made worse by invasive zebra mussels. Zebra mussels consume free-floating algae and zooplankton, but they leave cyanobacteria—which compete for the same nutrients and sunlight—largely untouched.

If land management surrounding our waters does not change to accommodate an increasingly wet climate with more extreme rain events, our lakes are likely to continue to experience poor water quality. These challenges are why Clean Lakes Alliance is advocating for and investing in individual and community actions through the Yahara CLEAN

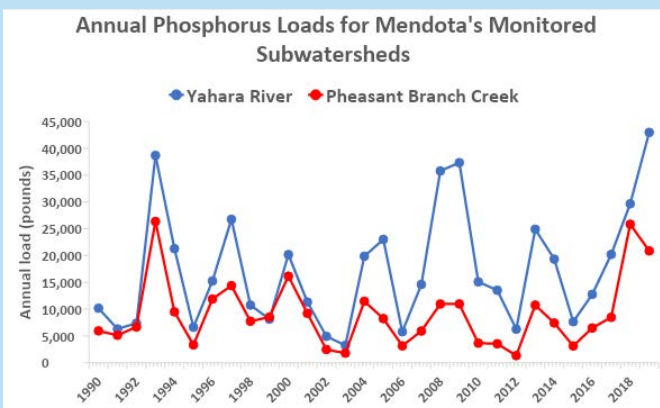


Cyanobacteria bloom on Lake Mendota
Photo courtesy of Arlene Koziol

(Capital Lakes Environmental Assessment and Needs Compact (pg. 2). Once Yahara CLEAN phosphorus-reduction goals are realized, University of Wisconsin limnologists have estimated that we will double the number of summer days when the lakes are clear and free of cyanobacteria blooms.



Each lake has the following number of public beaches monitored by Public Health Madison Dane County for beach closure: Mendota (8); Monona (8); Waubesa (2); Wingra (1); Kegonsa (0)



Annual phosphorus loading to Lake Mendota from 1990-2019 as measured at the U.S. Geological Survey's monitoring stations on the Yahara River (at Windsor, WI) and Pheasant Branch Creek (at Parmenter Street in Middleton, WI). Loading was at record levels in 2019 largely due to an unusually large snowmelt in March of 2019. Source: T. Stuntebeck, U.S. Geological Survey & R. Lathrop, UW Center for Limnology

UPCOMING EVENTS

NOV
11

YAHARA LAKES 101

Wednesday, November 11th, 2020
Online via Zoom

DEC
1

MENDOTA FREEZE CONTEST BEGINS

Tuesday, December 1st, 2020
mendotafreeze.org

JAN
13

YAHARA LAKES 101

Wednesday, January 13th, 2021
Online via Zoom

FEB
6

FROZEN ASSETS FESTIVAL & FROZEN 5K

Saturday, February 6th, 2021
The Edgewater & Lake Mendota

FEB
10

YAHARA LAKES 101

Wednesday, February 10th, 2021
Online via Zoom

CLEANLAKESALLIANCE.ORG/EVENTS



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SUMMER REVIEW & FALL PREVIEW 2020



SUSTAINING FOUNDERS



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