

W.A.C.F.

WAWASEE AREA CONSERVANCY FOUNDATION

CONSERVANCY VIEWS

Spring 2020

*Initial findings from
Wawasee Inlets Nutrients Study (WINS)*

*Recent updates from WACF
remediation and restoration projects*



Message from the Chairman:



Chris Roberts
WACF Chairman

It's Spring! Yet, it's a different feeling – different from the euphoria that we lake lovers have come to expect and enjoy each year when the temperatures rise and the snows become infrequent. Many of us have had to become amateur epidemiologists, learning techniques and employing them to protect our families and ourselves. Some of us are caught wondering, "will it ever be the same again"? Well, I believe it will and I believe deep inside that you believe it will too.

Over a lifetime, adversity has affected just about all of us in some way. Most all of us have figured a way to absorb its sting, incorporate it into our lives and then use the memory to our advantage and move on, wiser and more appreciative than ever before.

Having a special place to visit and spend time such as at Lake Wawasee, Syracuse Lake and the Wawasee Watershed can help us deal with almost anything. It gives freely of itself. It's sparkling, warming waters, it's fresh lake air and it's "let's get the family together" atmosphere provides a sanctuary where we can touch base with reality and regroup ourselves, allowing all who visit to realize that normalcy is always waiting for us to arrive, no matter how hectic life may become.

However, our special place requires maintenance. That's where your Wawasee Area Conservancy Foundation partners with your financial support to identify threats through the intensive Wawasee Inlets Nutrient Study. WACF remediates the trouble spots we find. We purchase and manage strategic wetlands, waterways and adjacent lands to buffer chemical runoff. This is how you and we at WACF work together to ensure a bright, healthy future for the very location that keeps our futures bright and healthy. It's a beautiful partnership protecting a beautiful place.

Please, take a moment to discuss with your family how you might financially join in our enthusiasm for The Wawasee Watershed, where so many of us have gathered for so many generations. Personally, I believe I'm indebted. That's just one reason I'm honored to be the chairman of an incredibly talented and dedicated board of directors of the Wawasee Area Conservancy Foundation.

Thank you so much for considering us.

Memorials & Honorariums

Memorial and honorarium gifts have a lasting impact, like the lives and achievements they recognize. All memorial and honorarium gifts are directed to the WACF Endowment Fund establishing a layer of stability under the Conservancy and ensuring it's strong and lasting future. Interest income from the WACF Endowment fund is used for ongoing Conservancy expenses, operating costs and programs.

2019-20 WACF Memorials & Honorariums (2019-5/15/2020) —

In Memory of:

Jane Atkins
Ted Ben Bales
John C. Barron
William Beemer
Marianne Beesley
Richard 'Whitey' Boerger
Tim Borne
Mary Lou Brewer
Harold Camesasca
Annet Lou Carroll
Judy Christofolis
Sandy Cobbum
A. Hunter and Neoma Colpitts
Kim Conrad
Nancy Cougill
Richard L. and Janet Davis
Russ Dellen
Gus Duehmig
Cynthia Foyeg
Stan Fox
Barb Grant
James C. Haddon, Jr.
Andrew and Laurie Hardie
Colleen Herdrich
Barbara Barron Hiers
Peggy Hipskind
Frank Hirschman
Dorothy Bay Hite
Kyle Hollon

Jill Hubbard
Linda Hubley
Tom and Judy Hughes
Needham Hurst
William Hurst
Jack Isenbarger
Pat Johnson
Robert and Rosalyn Jones
Susann Kellogg
Dick Kelly
Mary L. Kiely
Albert Kramer
Casey Kroh
Sara Kroh
Mrs. Fred Lopp
Dr. Vance Lopp
Maurice and Lucille Lung
Bill McNagny
Peggy Clapacs Miller
Walt Miller
Deceased Morrison
Island members
Father Glen O'Connor
Eleanor Organ
Don Osbourne
Sherry Ott
PADOROMA
Carolyn Parmerlee
Dr. William K. and Mary H. Patterson
Dick Reasner
Priscilla Rhode

Ted Rogers
Thunder Run
William Nathan Salin
Sophie C. Salin
Douglas A. Schmahl
Hilda Smith
Terry E. Smith
Herbert and Donna Snyder
Linda Tillman
Charles Walker
Isabelle Westfall
Marilyn Wilson
Ken Woodruff
Matthew Wuebker

In Honor Of:

Doug and Carolyn Anderson
Donn Baird
Todd and Missy Cleveland
Heather Harwood
Brian and Jamie Hull
Mr. & Mrs. Bob Loose
Thomas and Marilyn Michael Family, Parents
Dave and Cindy Newcomer
Steve and Sally Springer
Paula and Kerry Sullivan
Doug and Eileen Williams
The Wooden Boat Thunder Run

Education Update

By Pam Schumm
Education Committee Chair



Education at WACF has been pared down this spring/summer due to the Covid-19 regulations. With school being cancelled in March we were unable to host several grade level field trips but look forward to seeing these students next year as we resume normal activities.

While several other events have already had to be cancelled (listed later in this article) we are going ahead with a few at this time.

Our first event will be the Pollinator Workshop on June 22, co-sponsored by WACF, The Watershed Foundation and Lilly Center for Lakes and Streams. TWF has graciously donated 30 sets of pollinator plants to be given away free of charge to the first 30 household that register. The workshop will be held outdoors at the Ruddell Pavilion and is limited to the first 30 households to register. While at this workshop you will learn about the value of pollinators, the reason to plant native pollinator plants and much more. You'll go home, not only with knowledge, but also large healthy plants to start or add to your own pollinator garden. Register by emailing your name and phone number to education@wacf.com or call 547-518-1146 and leave a message. We will return your call and register you for this free event.

All other June events have been cancelled as has the July 1 Fishing with the DNR. We are currently expecting to be able to host the July 4 Bug Catch! This is our ever popular walk into the water in search of little critters that live there waiting to grow up into adult insects. This event will begin at 9 am at Ruddell Pavilion and conclude at 11 am out at the lake shore. We are also expecting to be able to host the Wetland Adventures on Wednesdays in July. These events begin at 9 am with a large group activity in the pavilion to "set the stage" for the other activities including the canoe scavenger hunt. Children of elementary age accompanied by an adult are welcome to attend. Life jackets should be brought for the canoe scavenger hunt.

We look forward to getting back open and hosting fun educational activities for all ages. While we are not offering many programs at this time, please feel free to come walk our trails and enjoy what nature has to offer at our beautiful setting. Explore nature on your own while practicing social distancing. WACF is open dawn to dusk for trail walks.

Cancelled events include:

- April 25 Earth Day Festival
- May 2 Bird Watch
- June 6 Native Plant Sale
- July 1 Fish with the DNR
- Fridays Canoe Trips



WACF events have been rescheduled or revised to meet the Governor's current guidelines. All events are subject to change and details will be updated on www.wacf.com and WACF Facebook page.

save the dates

JUNE

2021
5TH Lake Talk & Eats - Native Plant Sale
Rescheduled - Saturday, June 5, 2021 - 9 AM

MON
22ND Pollinator Workshop - 7 PM WACF Center - Ruddell Pavilion
Learn about native plants and pollinators. **FREE event** limited to 30 registrants (Couples may register together.) **FREE** set of pollinator plants for home!
Registration required: email education@wacf.com or call 547-518-1146.
Hosted by WACF and presented in partnership with The Watershed Foundation, Lilly Center for Lakes & Streams, Kosciusko County Soil & Water District.

2021
25TH THE EVENT - WACF Summer Social - 7^{PM}
Rescheduled - Friday, June 25, 2021 - 7 PM

June, July & August - WACF 10 Lake Canoe Trips

Rescheduled - Summer 2021



JULY

2021
WACF & DNR Family Fishing Fun
Rescheduled - Summer 2021

SAT
4TH Lake Talk & Eats - Annual Water Bug Catch - 9^{AM}
Ruddell Pavilion & WACF Lakeloom - Water Bug Catch will follow distancing and crowd guidelines. Children must be accompanied by an adult. Check www.wacf.com and Facebook for updates.

WEDS
8^{PM} 15TH 22ND 29TH Wetland Adventures - 9^{AM} to 11^{AM}
Wetland Adventures will follow distancing and crowd guidelines. Children must be accompanied by one adult. Please arrive by 9 AM for the first activity and bring a lifejacket for each child. Check www.wacf.com and Facebook for updates.
Free event, activities change each Wednesday; come once or every week, no registration necessary.

SAT
25TH Annual Lake Celebration & Brunch - 10:30^{AM}
Welcome neighbors, friends, and supporters. The Lake Celebration and Brunch will follow distancing and crowd guidelines while celebrating WACF volunteers, Cattail Award winners, and our work protecting the watershed and keeping our waters clean. Updates on www.wacf.com & Facebook page. *Free event, no registration necessary.*

AUGUST

SAT
1ST Lake Talk & Eats - WACF Lillypad Cruise - 11^{AM}
Cruise Indiana's largest natural lake and discover how you can help keep our lakes clean.
Reservations: \$20/person, at WACF Center: 574-457-4549 or e-mail info@wacf.com.

Be sure to follow us on Facebook and Instagram for up to date info! @WawaseeConservancy
www.wacf.com Wawasee Area Conservancy - Education Center: 0586 N SR13, Syracuse, IN 46567



Wawasee Inlets Nutrient Study Reaches Or

Jointly written by
Beth Morris
Ecology Committee Chair and
Dr. Jerry Sweeten
Founder EcoSystems Connections

It's all about the lake. It's always been about the lake, families, traditions, recreation, renewal and a commitment to the lake for future generations. Since the mammoth chunk of ice broke loose from the receding glacier to form Lake Wawasee, it has been a natural wonder and a place where people have lived and treasured.

Since this time, multigenerational roots have grown deep with a sincere passion for this place that has added value with memories beyond measure. A first fish caught, learning to water ski, family cookouts, community events, ice skating, and much more.

Lake Wawasee has touched the lives of so many people in profound ways and all this depends on clean water. Whether we fish in it, boat in it, play in it, or just admire the beauty, the quality of Lake Wawasee depends on clean water. When we think about our precious lake, we want to see clean water at the end of our piers in every season.

The Wawasee Area Conservancy Foundation is committed to the clean

WACF Remediation and Restoration Tally

WACF conservation projects completed since 1991 20

Potential projects:

- "Hot Spots" identified for remediation 29
- Critical areas of watershed identified for remediation 99

water legacy of Lake Wawasee through research, implementing on-the-ground conservation projects, forging conservation partnerships, and helping people understand how to keep our beautiful lake clean for future generations.

WINS Year 1 has been a success. Here are some of the accomplishments:

WINS Year 1 By the Numbers

Stream inlets into Lake Wawasee	5
Gage stations installed	6
Fish species found at the 5 stream sites	19
Total count of fish assessed	1,000
Water samples taken	2,945
Individual nutrient and sediment tests run	18,359

What affects the quality of the water depends on the amount of nutrients and sediment that find their way into the lake. Streams carry nutrients and sediment into the lake from the surrounding landscape as well as runoff from our lawns. Once in the lake, these nutrients can churn up from the lake bottom as we enjoy the lake for boating and recreation. The very same nutrients that are beneficial for making our lawns green, our flowers large, and crops abundant are readily used by organisms in our lake ecosystem. There can be too much of a good thing and this is certainly the case for nutrients (Phosphorous and Nitrogen). In small amounts these nutrients can significantly shift ecological processes and show up in our lake as stringy algae, suspended "pea soup" algae, nuisance rooted aquatic plants, and even blue-green algal blooms. This change in water quality can happen quickly or gradually over a longer period. To fully understand the complexities of this challenge requires a scientific in-depth examination of Lake Wawasee relative to the surrounding watershed.

So, what happens to these nutrients and

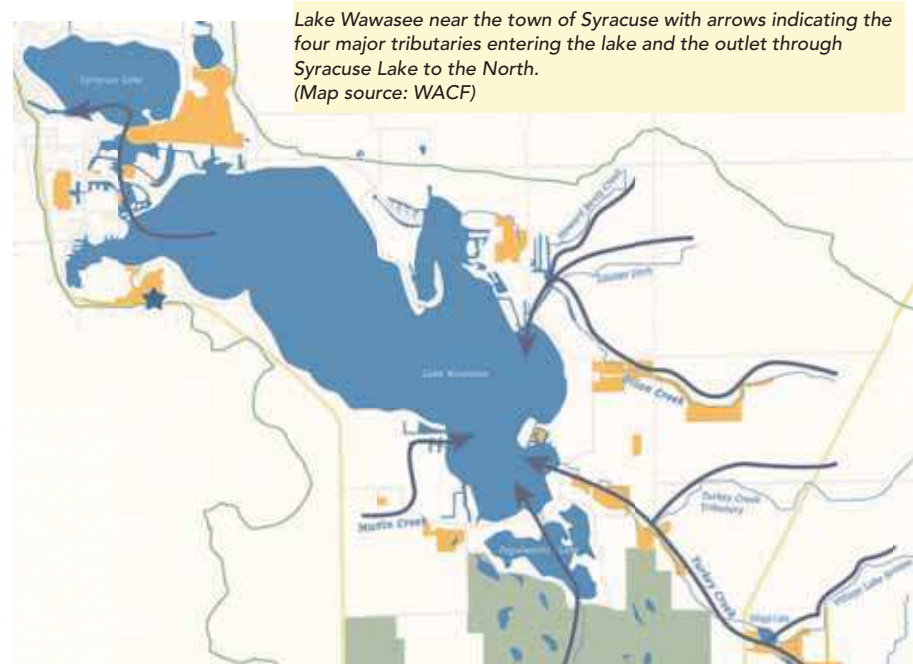
sediment that come into the lakes? Let's take a quick look at the main culprits: Nitrogen, Phosphorous, and sediment.

First, Nitrogen. Under the right atmospheric conditions, Nitrogen can change form from nitrate to nitrogen gas

Next, Phosphorous. An excess of Phosphorous, even in extremely low concentrations, can result in excess algae. The amount of Phosphorous that can cause this response in the lake is equivalent to only 32 cubes of sugar in a volume of water the size of an Olympic swimming pool. This is a tiny amount!

Sediment is the third water quality culprit. Once in the lake, it can only be dredged and often accumulates in channels which are very efficient sediment traps. To make this more of a challenge, Phosphorous hitchhikes on sediment particles and settles to the lake bottom. When we stir up the bottom of the lake, some of that stored Phosphorous can be released and cause further algae and aquatic plant growth.

and enter the atmosphere, leaving the lake. Some flows out but some of it stays behind in the lake.



One Year Milestone

The Wawasee Inlets Nutrient Study (WINS) is a three year scientific endeavor funded by WACF and partners to help us understand the amount of nutrients and sediment entering the lake with data that will fundamentally change WACF's approach to restoration and remediation, focusing on the goal of clean water in the lakes. The first year of the WINS was successfully completed in 2019 and generated a scientific set of data that describes how much nutrients and sediment entered the lake. As you can imagine, it takes a lot of time and statistical horsepower to analyze 18,359 individual data points, correlate them to rainfall and stream flow, run multiple complex statistical analyses, generate graphs, and summarize the findings. In mid-April, Dr. Jerry Sweeten and his ECI colleagues finished the Year 1 report for WINS. It is a 186-page document packed with data, graphs, and explanations. Members of the WINS subcommittee of the Ecology Committee are working hard to fully analyze this "nutrient-dense" (yes, pun intended) document to extract the full value, including key insights that will guide our restoration and remediation efforts going forward as well as set a baseline from which to measure progress for decades to come. We will be continuing this effort for the next several months.

Our main interest is the water entering the lake from streams that carry sediment and nutrients and can change Lake Wawasee in dramatic ways. It is a complex scientific story of how our lake is influenced by the water coming into the lake from the surrounding land, but one of the important pieces of information we have learned this year about

our lake is just how long water stays in the lake before going over the dam and continuing its journey to the Atlantic Ocean. The length of time it takes to totally replace all of the water in the lake is called "Lake Water Retention Time." We learned it takes 2.2 years for this to happen. We also learned that in one year not quite one-half of the lake water is replaced. This is called the "Water Replacement Rate." What this new water carries into the lake, what happens to the nutrients and sediment once they are in the lake, what is trapped in the lake and what is carried out of the lake is central to the health of Lake Wawasee. It is important to help us understand the trajectory of the health of the lake. So it is a simple ecological version of "out with the old and in with the new." In the human body, we see chronic conditions that creep

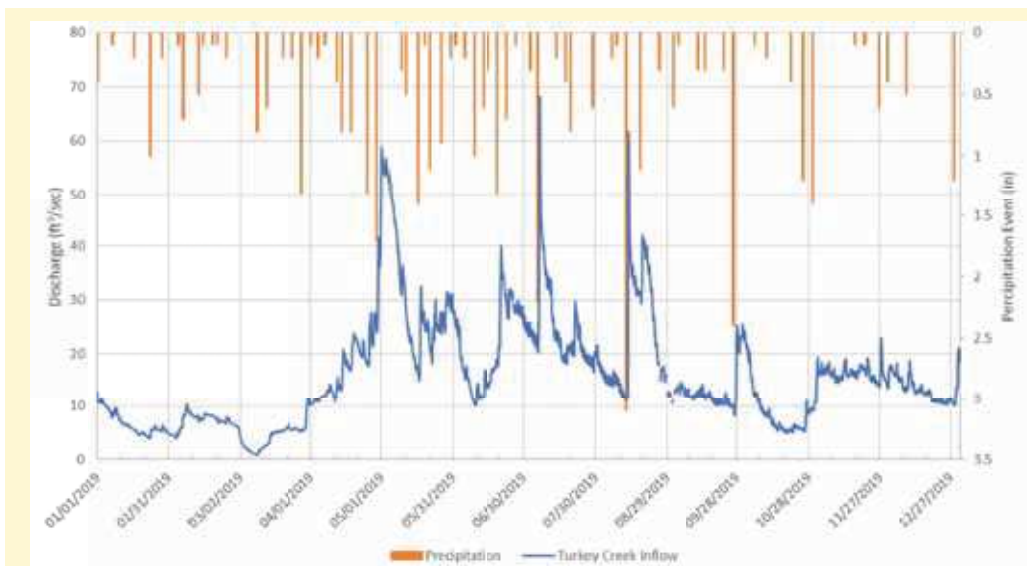
up insidiously over time, like the clogging of arteries with plaque. In the same way, we are seeking to understand the chronic impact of nutrients and sediment entering the lake — and take action before it becomes acute.

additional 99 potential projects aimed at reducing sediment and nutrient. The challenge: how to prioritize efforts going forward. For the first time we have a scientific benchmark for water quality success.

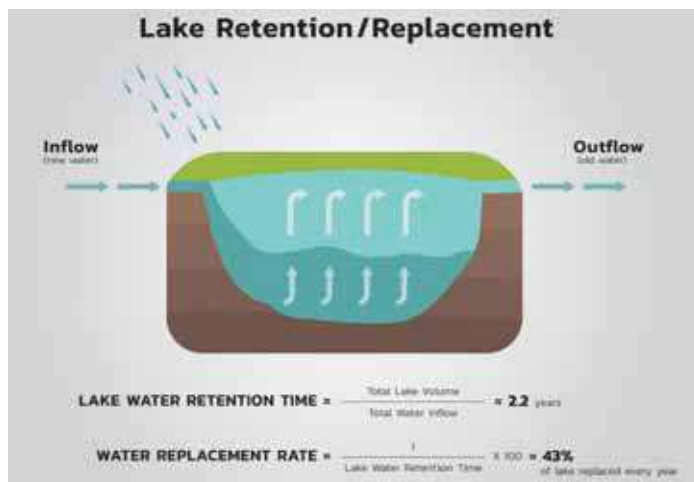
This same data collected over three years, taking into account the variability of nature, will enable us to see the pattern of accumulation of nutrients and determine whether they are moving in a way that harms our lakes. This in turn will guide WACF strategies for "shutting off the tap" of excess nutrients and sediment that enter our lakes and impair water quality.

What we all do collectively as a Lake Wawasee community today will ensure clean lake water for future generations. We couldn't be more excited to continue this robust research project to ensure our efforts are focused on the best opportunities for success.

WACF identifies ecological issues and works to fix the root causes, focusing solely on the Wawasee Area Watershed. The end game is to "shut off the tap" of excess nutrients and sediments that enter our lakes and impair water quality. Our approach to this point has included 20 different restoration projects that included constructing retention ponds, stabilizing stream banks, and restoring wetlands. A recent "hot spot" study identified an



This is a hydrograph of stream discharge (blue line) in cubic feet per second (CFS) at Turkey Creek Inflow and illustrates the result of a rating curve unique to this water quality gage station. The vertical red bars represent rainfall in inches relative to stream discharge. Water samples are matched with stream discharge to calculate nutrient and sediment loads.





Heather Harwood
WACF Executive Director

Highlights from the Executive Director



Greetings from my house to yours. The WACF staff wishes you well. During this time of social distancing, we hope you are finding some comfort in nature, especially our lakes area! The rejuvenating qualities of a lake is a gift that keeps on giving, in all seasons and over the years. We hope you and get out and enjoy the water, wetlands, fresh air, birds and plants.

The mission of WACF to protect our watershed's natural resources is more pertinent today than ever before. We remain very committed to remediating problem hot spots and

preserving natural areas that help protect our pristine areas and ensure good water quality so we can continue to enjoy these natural lakes and benefit from their good health.

We celebrate our partnerships and all of the projects with the IDNR, Lake and River Enhancement, the US Fish and Wildlife Service, the Natural Resources Foundation, the USDA, the Kosciusko County Community Foundation and the Syracuse-Wawasee Trails Committee. The

Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction.

- Dr. Edward O. Wilson

S-W Trails have now completed their wonderful section of boardwalk over Conklin Bay linking the entire Syracuse-Wawasee trail system to the trails at WACF and beyond.

The new trail along the WACF Levinson-LeBrosse Education Center property on SR 13 includes about 1/3 mile of wetland boardwalk and 2/3 mile of concrete sidewalk linking to over two miles of trails at WACF.



- Open sunrise to sunset
- No motorized vehicles
- Stay on the trails
- Do not feed the wildlife
- Dog friendly - leave no trace
- Keep trails clean - do not litter



Trail Map at WACF Trail link to new SR 13 trail



WACF entry to
Levinson Labrosse
Education Center

★ YOU ARE HERE

Contact us:
Email: info@wacf.com
Phone: 574-457-4549
Website: wacf.com

Legend

Trails	Distance	Time
1. Lake Shore	1mi	21min
2. Wetland-Woodland	.8mi	18min
3. Center-Wetland	.3	7min

You are entering Wawasee Area Conservancy Foundation property.

This property is used year-round for educational and community events including: Worldwide Earth Day, Native Plants Sale, Syracuse Parks Mudtastic, Children's Bug Catch!, Wetland Adventures, The "Event" Community Party, Lakes Celebration, Falltastic Trail Walk, Christmas Lights Gathering, school field trips, ecology oriented meetings, weddings and remembrance ceremonies.



New Boardwalk Section – thanks to the Syracuse Wawasee Trails!

Working on the Hot Spots -

Thank you for your support and being part of our efforts to keep our water clean. WACF works for clean water by remediating hot spots in the watershed, protecting important wetland and upland areas, and our WINS water study testing inlets. There are 99 hot spots on our to-do list to protect our waters through conservation work in the watershed. This fall we'll begin work on Phase II of the Turkey Creek Tributary made possible through LARE. The work focuses on reducing the stream flow velocity to protect the eroding embankments. A combination of Best Management Practices were designed to reduce stream velocity by 20-50%.

WACF recently cleaned out the sediment basin (built in 2006 with LARE funding) at the outflow of Martin Creek into the Leeland Addition in an effort to help keep sediment out of the channel.

We thank volunteers who help keep our lands looking good with all kinds of help like mowing, work in the wildflower gardens and cleaning up natural areas. A big thanks to Leo Barnhorst who spent time cleaning up the woods behind Ogden Point in March while his family was social distancing due to COVID-19. A good reminder to all of us to keep our lake area clean!



Leo Barnhorst cleaning up the woods



Sediment Basin clean out is Martin Creek into Leeland Addition

A Spring to Remember?

By Bill McCully
Development Committee Chair

This has certainly been a Spring to remember (or forget). Perhaps more than ever, we are all ready for the warmth, growth and renewal that comes with the change of season. As George Harrison wrote, "It seems like years since it's been here..."

Spring also brings the promise of Summer and those times, traditions and experiences that are unique to our beautiful lakes area. In a time with so much uncertainty, I have personally taken comfort in the fact that our lakes endure, offering a sense of home, stability and peace. In fact, we have chosen to "shelter-in-place" here at the lake this year. Just as you do, I wonder how our traditions will be affected by the pandemic and the changes it has forced upon all of us.

Please know that the WACF is continuing its mission to protect our lakes and help them thrive. As you have read elsewhere in this newsletter, we are very busy with our signature research effort, the Wawasee Inlets Nutrient Study. We are starting to see significant data which will guide us in our unique position and responsibility—to take action to protect the waters of the Wawasee Watershed.

As we better understand the impact of the materials that enter our watershed, the WACF is able to act by acquiring new land or leveraging our current properties to mitigate the negative impact of nutrients on water quality. As we review this new, comprehensive data, we are excited to be see how strategic land acquisition and effective management of our current holdings

can ensure clean and healthy lakes for the enjoyment of generations to come. Very exciting stuff!

This year, we will be rescheduling The Event, our annual Summer social gathering at the WACF Center that was planned for June 26. This was a difficult decision, but to ensure the safety and health of all concerned, we determined it was best to not go forward with our traditional party. However, we are going to invite you to visit the property with your family and tour the many exciting venues, vistas and trails that offer a wonderful experience and fabulous views of the lake, wetlands and woodlands. Details to follow. Also, mark your calendars now for June 25, 2021 for the return of The Event. It will be better than ever!

Also, we are very excited and looking forward to announcing the formation of two new sustaining membership societies. These groups will provide members unique benefits and opportunities while supporting the mission of the WACF. Keep an eye out for an announcement soon and learn how you can actively live your love of the lake!

Finally, as someone who is tasked with ensuring the Foundation has the financial resources to carry out its mission, I struggle with engaging in traditional fundraising activities when our friends and supporters have been impacted in so many ways. I would simply invite you to consider your own circumstance and know that WACF will continue its mission and we look forward to your support whether it be financial, moral or through ongoing volunteer opportunities.

Be safe! Be well!



11586 N. SR 13
PO Box 548
Syracuse, IN 46567
Phone: 574.457.4549
Email: info@wacf.com

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Happy Birthday, Al Campbell!

Al has been involved with WACF since the very beginning. He is a key member of the WACF Canoe team handling the logistics of the WACF canoe trips. It takes a lot to keep the group trip going and organized! Al was on the WACF Board from 1996 – 1998.

A favorite saying of Al's:

*"Do as much as you can,
As long as you can,
And when you can't do it any longer...
DON'T COMPLAIN!"*

We love you, Al



Doug Yoder and Al Campbell at the WPOA/SLA Annual Breakfast Canoe Station at Oakwood.

Established in 1991, The Wawasee Area Conservancy Foundation (WACF) is a 501(c)(3) tax-exempt, non-profit organization. Contributions to the WACF are tax-deductible to the extent current tax law allows. Please check with your tax advisor.

www.wacf.com

