

HEADWATERS

A core publication of the Lilly Center for Lakes & Streams | Spring 2020

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LILLY CENTER FOR
**LAKES
& STREAMS**



Dr. Nate Bosch, director

LETTER FROM THE DIRECTOR

The uncertainty created by the COVID-19 pandemic is concerning for our whole community on both economic and personal levels. On behalf of the whole Lilly Center team, I want to offer heartfelt empathy and prayer to all families and organizations impacted by the virus.

Even while we adjust to temporary limitations, we eagerly anticipate the day we can come together at the lakes once again -- hopefully soon!

In the meantime, our team is working toward another summer of education, research and collaboration all focused on making our local lakes and streams clean, healthy, safe and beautiful. You can read about a few of these efforts in this newsletter.

During this rapidly changing time, we ask that you consider investing with us in the stability of clean lakes, family gatherings and our local economy. You can help us in the near-term with operational donations toward projects, equipment, and student support. You can also help us with long-term progress and even larger impacts through estate planning, property donations, and legacy gifts. Gifts can be made through our website's donations portal: lakes.grace.edu/give

As always, please contact us with any questions or comments you may have! We hope and pray you and your family are safe and healthy.

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GRACE
COLLEGE

Generational Vision: The Tuckers

HOW DO YOU FEED THE NATION WHILE CARING FOR YOUR LOCAL ENVIRONMENT? SCOTT & WENDE CAN ANSWER THAT QUESTION.

By the time Scott and Wende Tucker got married and hosted their reception on Winona Lake in 1988, they had already lived much of their lives on the lakes of Kosciusko County. From Winona to Chapman, the Tucker family has an established and growing legacy.

Most know the Tuckers as the owners of Maple Leaf Farms, a duck product company based in Milford, Ind. Since 1958, Maple Leaf has been a family business. In 2001, Scott Tucker and his brother John were named as co-presidents under the leadership of Maple Leaf's president and their father, Terry Tucker.

Over the years, Scott Tucker has witnessed the increasing value of the lakes – on both personal and economic levels. “There’s an overarching awareness and greater level of care for our lakes,” said Tucker. “More lake associations are engaged, and the interest of everyone in Kosciusko County helps undergird the work organizations like the Lilly Center are doing.”

“The lakes are a key part of our fun and enjoyment with family,” Wende added. For her, the water is as important as the habitats that surround it. “When they were growing up, our children and nieces loved to enjoy the land around the lakes, as well as water sports. They’d get to see turtles and birds and other wildlife,” Wende said. Wende is a nature-lover, too. “I’m thrilled about the loons that come to visit, and the frogs that put me to sleep at night. We’re so blessed to have these lakes in our area,” she added.

Earlier this year, the Tuckers added one more to their family: a baby granddaughter. “As soon as we can, we want to get her out on the lake,” said Tucker. Eventually, they plan to show her how to go tubing and waterskiing. “I look forward to her first boat ride and all the fun we’ll have with her as she grows up,” Wende said.

As the owners of an agricultural business, the Tuckers have always had a unique perspective on lake health: They start with the land and work their way to the water. “In the past, the agriculture industry has been maligned as it relates to our concerns and protection of local waters,” said Scott Tucker.



Scott and Wende Tucker (top) enjoy a sunset over Chapman Lake. These pictures capture some of what they see on a regular basis.

“THERE’S A GREATER LEVEL OF CARE FOR OUR LAKES... THE INTEREST OF EVERYONE IN THE COUNTY HELPS SUPPORT THE WORK ORGANIZATIONS LIKE THE LILLY CENTER ARE DOING.”

But in the last 20 years, a lot has changed. The Tuckers have experienced a positive shift in responsibility. “Agricultural producers, including Maple Leaf, have taken big steps to maintain the health of our lakes,” Tucker said. Since its founding, Maple Leaf has pursued innovative ways to protect the local environment while providing some of the highest quality duck products. For instance, they are reducing and reusing the water needed for production.

“Through those efforts, we’ve seen significant change,” said Tucker. “We’re ensuring that water that’s been discharged back into the environment is as clean as when it comes out of the ground. That impacts not just groundwater, but our lakes and streams, too.”

The Tucker family shares the Lilly Center’s vision for clean, healthy, safe and beautiful lakes, and has given generously to the center over the years.

“We’re blessed to have these lakes as a significant economic and recreational draw to the county,” said Scott Tucker. “The Lilly Center is not just helping protect the economic interests. They really support multiple generations of families that call this area home.” It is a legacy worth protecting far into the future. •

Meet the Lilly Center’s K-12 sponsors

These generous sponsors provide the financial backbone for our 2019-20 K-12 programs. They are inspiring the next generation of local leaders by supporting the work we do! Our 2019-20 underwriting sponsors are:



CLASSROOM LAKE EXPERIENCE

Akron Elementary School, City of Warsaw Stormwater Utility, Clearwater Car Wash, CTB, Dekko Foundation, Hand Family Foundation, Kosciusko Endowment Youth Services, Paragon Medical, Syracuse Lake Association, The Papers, Tippecanoe Valley High School, Warsaw Breakfast Optimist Club, Wawasee Area Conservancy Foundation, Wawasee Property Owners Association, Winona Lake Preservation Association, Zimmer Biomet

LAKE ADVENTURE DAY

Bart’s Water Sports, City of Warsaw Stormwater Utility, Dekko Foundation, DePuy Synthes, Kosciusko County Fairgrounds, Lake Tippecanoe Property Owners, The Papers, Warsaw Breakfast Optimist Club, Zimmer Biomet

DESINATION FIELD TRIPS

City of Warsaw Stormwater Utility, Dekko Foundation, Polywood, Zimmer Biomet

AQUATIC PETTING ZOO

Anderson Farms, Dekko Foundation, The Papers, Zimmer Biomet

LILLY CENTER ART CONTEST

The gathering, counting and displaying of artwork was delayed until June, 2020, due to COVID-19.

City of Warsaw Stormwater Utility, Clearwater Car Wash, Dekko Foundation, Didage & Surgical Power, Kay Young - Todd Realty, Medtronic, MutualBank, The Papers, The Watershed Foundation, Zimmer Biomet

Ready to support Lilly Center K-12 programs? Email Caitlin Yoder, education coordinator: yodercs@grace.edu

Adrienne Funderburg, research program specialist at the Lilly Center, takes a measurement at one of the Barbee-Chapman sampling sites.

Barbee-Chapman study set to show before and after of sewer installation

By Adrienne Funderburg



One way we help protect the lakes and streams of Kosciusko County is to understand the impact of local efforts that share the same goal. The Lilly Center research team is doing just that for the Barbee chain this year. The establishment of the Lakeland Regional Sewer District is a unique opportunity to study how these lakes and streams were influenced by the change from septic to public sewer.

The LARE-funded study surveys water quality in the Barbee

chain compared to the nearby Chapman lakes, used as the experimental control. The study targets water quality characteristics related to wastewater; nutrients, *E. coli*, dissolved oxygen, and stream habitat quality are just a few of the parameters we will be measuring throughout the summer. In fact, this year's study is the same as the Lilly Center performed in 2012 before the sewer district was built. With this study design, we will get a "before and after" for these aquatic ecosystems. You can visit our website to read the results of

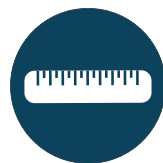
the 2012 study, and we will report our 2020 observations after sampling is complete in the fall. With locally-focused research like this, we can learn from present water quality efforts and inform future ones all across the county for the health of our waterways.

You can learn more about the Barbee and Chapman lakes in our 2019 *Beneath the Surface* report, available on our website: lakes.grace.edu.

QUICK FACTS ABOUT THE BARBEE-CHAPMAN LAKES

BIG CHAPMAN

Surface area 504 acres
Max. depth 39 ft
Avg. depth 12.5 ft
Watershed 4,500 acres



MAX DEPTH of FISH HABITAT

BCH 19.7 ft
BBA 10.9 ft



WATER CLARITY

BCH 7.5 ft
BBA 3.6 ft



TEMPERATURE

BCH 78.8°F
BBA 78.4°F

UPCOMING EVENTS

More details and a list of our fall events are available on our website: lakes.grace.edu

CENTER LAKE CONSERVATION CLEANUP

June 20, 9am-12pm | RSVP required

Center Lake Conservation Association is hosting a cleanup in the area behind Osborn Manufacturing! Participants will remove logjams and trash from the channel.

STARRY STONEWART COLLABORATIVE WEBINAR

June 23, 10-11am at the Lilly Center | RSVP required

This webinar is for individuals or groups that are interested in learning about starry stonewort, as well as other invasive species, and potentially doing simple surveys and reporting on local starry stonewort populations.

LAKE WAWASEE ECOTOUR EXPEDITION

July 11, 9-11am | RSVP required

In partnership with Wawasee Property Owners Association, Dr. Nate Bosch will lead a boat tour of Lake Wawasee. Attendees will learn about the diversity of Wawasee's aquatic habitats.

LEOPOLD EDUCATION WORKSHOP

July 16, 9am-2pm at the Lilly Center | RSVP required

The Lilly Center is partnering with the Leopold Education Project to showcase lessons on Land Ethics. This workshop will highlight a variety of hands-on and engaging activities that can be used with students and community groups alike.

ALGAE REPORTING WEBINAR

July 20, 1-2pm at the Lilly Center | RSVP required

Learn about blue-green algae and its relevance in our Kosciusko County lakes, including how to recognize a bloom and how to join in on our research efforts by reporting them.

SPILL/POLLUTION REPORTING WEBINAR

August 17, 1-2pm | RSVP required

Participants will be trained to identify the differences between point and nonpoint source pollution in a lake, and what steps to take to report these issues.

BEYER TRAIL EXPEDITION

August

Get ready to get your hands dirty! Learn about wetlands and how important they are for clean water. We will be talking about the city's water quality efforts and sampling for macroinvertebrates.



LIKE WHAT WE'RE DOING?

We like you, too! You can give and get involved by visiting our website: lakes.grace.edu.