

## **LILLY CENTER FOR LAKES AND STREAMS FALL REVIEW 2019**

By Sid Elford

The Lilly Centre for Lakes and Streams conducts research, provides resources, engages residents, and collaborates with local organizations to make the freshwater lakes and streams of Kosciusko County clean, healthy, safe, and beautiful. Due to the Lilly Centre's diligent, strategic work, the lakes and streams in Kosciusko County are some of the best studied in the state of Indiana.

The Lilly Centre has been closely studying local lakes since 2007, but lakes in Kosciusko County have a heritage of scientific research dating back to 1875. The Lilly Centre believes that understanding the health of local lakes in the context of their history can assist in guiding future research and actions. Both past and present research uses data collected in open water above the deepest point in each lake.

“After all, Kosciusko County's lakes have a ripple effect on regional recreation, tourism, and place-making,” notes Nathan Bosch, Director of the Lilly Centre. “In Kosciusko County, it's orthopaedics, agriculture, and lakes.”

In fact, the total economic impact of lakes to Kosciusko County is more than \$313 million annually, according to a 2016 economic impact study conducted by the Lilly Centre. Many Warsaw-area businesses rely on the lakes for their year-round sales, as well, including marinas, boat dealers, bait and tackle shops, restaurant, lodging, lakefront real estate, and more.

According to a survey by the Lilly Centre, one lakeside restaurant reported doing 80 percent of its sales between Memorial Day and Labor Day alone. “A positive or

negative shift in the water quality of these lakes could enhance or severely harm the businesses that are located around these lakes.”

“It’s these high stakes that have created the need for a collaborative effort to keep Kosciusko County’s lakes in shape,” Bosch explains. “And protecting this powerful natural resource is no small task. The number one threat to water quality in the area is too many nutrients coming into lakes and streams. When there are too many nutrients, excessive weeds lead to algae growth.”

The sources of these algae-causing nutrients in the lakes are many, including soil runoff from banks and shorelines; sediment from farm fields and construction sites; fertilizer from golf courses, yards, and farms, even human and animal waste from livestock and wildlife. While rooted plants in bodies of water can cause issues for boat traffic, even more importantly, algae can produce toxins that are harmful to people and pets.

“We don’t want to eliminate these nutrients completely because they are part of the food chain,” Bosch says. “But right now, the food chain is overloaded; it’s not working as it should.”

To help right the system and make other waterway improvements in Kosciusko County, the Lilly Centre works to educate and equip a variety of regional organizations. For instance, when the Lake Tippecanoe Property Owners association came to the Lilly Centre about flooding due to logjams on the Tippecanoe River, Bosch’s team worked with the association to clean out more than 300 logjams. “Collaboration is really important.” Bosch says.

Other waterway-oriented organizations that the Lilly Centre works with include the Watershed Foundation, the Natural Resources Conservation Service, the Soil and Water Conservation District, Paddlers for Conservation, Army Corps of Engineers, Indiana Department of Natural Resources, Indiana Department of Environmental Management, and Wawasee Area Conservancy Foundation.

But beyond the importance of organizations and students engaging in water quality awareness, what is equally – or perhaps even more – important, is having a region of what Bosch refers to as “water-literate citizens” in northeast Indiana. It is for this reason that the Lilly Centre is committed to education people in Kosciusko County and beyond about how to take care of their local lakes and streams.