

AYC Ecology North

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Group fights sediment pollution in Lake Erie

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Volunteers from the US Army helped Save Maumee clean up garbage in the river last summer (2011). Abigail King pictured in front. Photo: Save Maumee

It started when Abigail King realized the river in her backyard was too filthy to swim in.

Stretching 130 miles from Fort Wayne to Toledo, the Maumee River drains 8,000 square miles, the largest watershed in the Great Lakes region. But unaddressed pollution lurks in its murky waters.

Listed since 1987 as an EPA Area of Concern, the Maumee provides "the largest tributary load of suspended sediments and phosphorous to Lake Erie" according to the U.S. Environmental Protection Agency.

Heavy metals from industry, farm runoff, and sewage overflows helped turn the once pristine

Maumee into the potpourri of pollution it is today.

But King, along with her friend, Ryan Baily, wanted to do something about it. In 2005, they formed Save Maumee, a volunteer non-profit cleanup crew dedicated to river restoration.

Named Indiana's 2011 organization of the year, and inducted into the Lake Erie Waterkeeper Alliance last March, the group is beginning to see some recognition for its hard work.

Funded entirely by donations, the Fort Wayne-based group removed more than 4,000 pounds of trash, planted more than 200 pounds of native seeds and hundreds

of trees and plants and placed more than 4,500 square feet of erosion control mats this year alone.

"Trying to make the water drinkable, fishable, and swimmable" is the ultimate goal, King said. "Our number one pollutant is sediment."

Ubiquitous in the region, sediment pollution lowers the oxygen in the water, making it harder for life to flourish. It also brings fertilizer, gas, and oil into the river as it attaches to debris during storms, said Matt Jones, a water education specialist for the Allen County Partnership for Water Quality.

Phosphorous from agricultural runoff and



Save Maumee plants native trees and plants along the river in an attempt to create a buffer zone between the sediment from storm runoff and the river. The erosion control mats help to slow down the process of erosion, in turn, reducing sediment loads. Photo: Save Maumee

sewage overflows travels downstream to Lake Erie where its presence is linked to dead zones.

The Lake Erie Waterkeeper Alliance estimates half of Erie sediment and more than 40 percent of its phosphorous stems from the Maumee.



A combined sewer and storm water discharge. The city of Fort Wayne, IN dumps about 1 billion gallons of untreated sewage and storm water into the Maumee every year. Photo: Save Maumee

Save Maumee believes that the Fort Wayne levy system, completed by the Detroit district of the U.S. Army Corps of Engineers in 2001, makes the sediment problem worse. The system was designed to alleviate flooding by accelerating the flow of the river. But critics say the faster flow and lack of vegetation from the project cause downstream flooding and more sediment from runoff getting into the river.

Think of it like a girdle, King said. You can't tighten a girdle in one area and expect the pressure to go away. That water has to go somewhere.

But it's not quite that simple, says John

Niemiec, technical manager for the project.

"The state of Indiana doesn't allow us to do what they call induced flooding, so you can't increase the flooding downstream of the project," Niemiec said. "You have to run the hydraulic models and make sure that your project isn't causing any further damage downstream."

"By stabilizing the banks we prevented a lot of stuff from coming into the system, I believe..."

"There was a lot more sediment falling into the river prior to the project."

Over the past 35 years, sediment pollution throughout the Maumee has decreased by nearly half, based on data from National Center for Water Quality Research gauging station in Waterville, Ohio.

Roughly 80 percent of the Maumee basin is surrounded by farmlands, so things like no till and reduced tillage agriculture, government sponsored conservation programs and simply leaving plant material on fields in the winter have all reduced sediment.

Despite the progress, sediment pollution remains a vexing problem.

The Army Corps often dredges Lake Erie shipping channels that quickly fill with sediment, said Pete Richards, senior research scientist for the National Center for Water Quality Research.

That's where King and her crew try to pick up the slack. As small and isolated as they are, volunteer groups like Save Maumee do their part in reducing pollution, even if only by a little.

Though the effects won't be visible for another 15 - 20 years, Richards says that more groups planting native plants and trees along the river to filter sediment could easily produce measurable change, improving the health of the Maumee River and Lake Erie.

If there's less sediment there's less contaminants, which improves not only the health of the ecosystem but our health as well, Jones said.

"Our community needs to know what's really going on with our waters," said Baily, the co-founder of Save Maumee. "We want our local government and our state government and federal government to know that there are people out there that are trying to make a difference."

"Our ultimate goal is clean, sustainable water."



US Army volunteers tried in vain to remove the abandoned husk of a boat before eventually moving on. Photo: Save Maumee