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Berm to help preserve Mud Lake Koshkonong dredging complete

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KOSHKONONG - An experimental dredging project on Lake Koshkonong has helped preserve ecologically valuable Mud Lake and might be the start of many more such efforts in the future.

The project, which took place during the late winter months, was a cooperative effort between the Rock-Koshkonong Lake District, Wisconsin Department of Natural Resources and the Army Corps of Engineers.

Brian Christianson, chairperson of the lake district, said the project is just one in a long line of steps to control erosion on Lake Koshkonong.

"In the last 25 to 50 years, Lake Koshkonong has become less of a rural lake and much more of what they would categorize as a suburban lake," he said. "So with that development, municipalities and residences and commercial development have taken measures to riprap and prevent their shores from erosion, as well as protect against water runoff."

The goals of this project are twofold. The dredging is seen as experimental because experts will monitor the dug-out area to see how quickly it refills, as well as study the erosion.

The material dredged from the bottom was used to fortify the barrier between Mud Lake and Lake Koshkonong. Christianson said studies done in the run-up to the dredging project proved that Mud Lake was a valuable ecological resource in need of protection.

"It proved what we all have known, that Mud Lake is a really valuable, tremendous, fish hatchery for walleye and northerns," he said. "But what we also discovered was, for the period over the last 20 years, aerial photos have shown that it's eroding into Lake Koshkonong to the point that in another five, 10, 20 years in the future Mud Lake would have become just another shallow bay of Lake Koshkonong. And it would have obviously degraded the fish hatchery that Mud Lake is."

The lake district's original plans called for the soil dredged from the lake bed to be used to create man-made islands, but further study showed that was not a cost-effective method. So, after learning more about Mud Lake's resources, a compromise was reached.

Contractors from Badgerland Excavating dredged material from the boat landing at the end of North Shore Drive, making that area of the lake a few feet deeper. Material dug from the bottom was then transported about 3,600 feet south along an ice road to the embankment between Lake Koshkonong and Mud Lake, and used to construct a new shoreline, protected by a containment berm separating those two bodies.

Because this is Wisconsin, the weather never did perfectly cooperate for the project.

"We had the drought in the spring of 2012 that led to extremely low lake levels from basically Thanksgiving to right after the first of the year, which looked like it was going to be a huge benefit to the contractor," said Christianson. "When you have the lake levels recede that far from the shoreline, it would make the project that much easier and, frankly, quicker."

"But then we never got a solid ice cap - we had a really late freeze," he continued. "Mother Nature never seems to want to cooperate with us on Lake Koshkonong."

Now the lake level has risen and the project has been halted again until late spring. The lake district still has plans to seed the new shoreline with native plants and install a new carp gate in the channel that connects the two lakes. Both of those projects are weather-dependent and won't be finalized until the season thaws.

Overall, Christianson said the project has been a success.

"It's been a win-win-win. All partners in this effort had a very, very collaborative, cooperative working relationship," he said. "We're coming to the end in late spring, and the best part of the project, really, is we will have come in way under budget."

The budget for this project was set at between \$200,000 and \$400,000, but Badgerland Excavators was contracted to complete it for only \$89,000.

As another benefit, the dredged material might have a recreational benefit for area boaters.

"It does make the area around the boat launch deeper, and, yes, it's sort of a secondary benefit," said Christianson. "I think the lake district would like to begin a conversation with the county, now that that dredge project is completed, and there is that secondary benefit for the boaters there. What can we do to improve that site? So many people tell us that while Lake Koshkonong is the third-largest lake in Wisconsin, compared to other lakes, we really don't have that many public boat launches."

The annual flood cycle that causes area residents so much grief is one of the root causes of the lake's eroding shoreline.



LAKE BERM — An experimental dredging project on Lake Koshkonong during the winter months is expected to help preserve the valuable ecological resources at Mud Lake. Silt was dredged from the lake bed near the North Shore Road boat landing, then transported south along an ice road to fortify the barrier between the two lakes, creating a new shoreline that will help protect against erosion. Aerial photographs had showed that the shoreline barrier was washing away and Mud Lake would soon become a shallow bay of Lake Koshkonong, compromising the valuable fish hatchery environments in that body of water. Shown here is

some of the project's construction.

"It's the wind and also, Lake Koshkonong's water depths vary greatly depending on the season," said Christianson. "The number one defense against erosion is armoring the shoreline."

If experts are satisfied with the results of this project, Christianson said, this could open the door for many more dredging projects on the lake in the future. One he said his team is looking at is rebuilding the shoreline on Blackhawk Island, where the Rock River enters the lake.

"That's an area of really dramatic erosion, so we may look at putting some stone berm structures there and using some future dredge spoils to deposit there," he said. "Slowly, we've become sort of the experts at erosion control and dredging. We need to monitor this project, but that's the ultimate goal: to conduct more near-shore dredging and do it in an economic and efficient way."

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