

Researcher debunks 3 myths about swimming in the lake

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A recent report saying that the northern end of Onondaga Lake is safe for swimming again after 75 years has created a buzz about how clean the lake really is.

Onondaga County Executive Joanie Mahoney said she hopes to launch a study next year about putting in a beach at the north end of the lake in the Willow Bay picnic area.

The author of the report, Dave Matthews, a scientist with the nonprofit Upstate Freshwater Institute, talked with The Post-Standard to set the record straight on a few things. Matthews, who has studied Onondaga Lake since 1997, said there are some common myths about the lake and swimming. Here are three of them, and why Matthews says they're false:

1 If the south end of the lake has too much bacteria to swim in, the north end can't be safe, either.

The south end of the lake

does have too much coliform bacteria for swimming, Matthews concedes, because of sewage overflows coming in from Onondaga Creek and the county's wastewater treatment plant. But that bacteria would die or settle to the bottom long before it could travel the 3 miles to Willow Bay, he said.

"These bacteria are adapted to live in the bodies of humans and other animals, and they like it warm and dark," Matthews said. "When they find their way out into surface waters, which are colder and exposed to sunlight, they die off pretty quickly."

State Department of Health regulations say beaches need to be only 750 feet away from "waste-water discharges from sewage treatment plants, combined sewers or other sources" of sewage. The highest allowed reading for coliform bacteria at a beach is 1,000 bacterial colonies per 100 milliliters of water. The highest reading taken by Onondaga County at Willow Bay in the summer of 2013 was just 64

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A diver leaps off a 100-foot tower into Onondaga Lake at the Maple Bay resort. Later called Lakeside Park, the resort opened in 1889 on the northwestern shore of Onondaga Lake. (OHA)

Myths busted for swimming in the lake

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colonies per 100 milliliters.

"According to the data, Willow Bay would have been open continuously" during swimming season, Matthews said.

2 There's still mercury in the lake, so it can't be safe to swim in.

State health regulations say beaches must be free of "chemical substances capable of creating toxic reactions, skin or membrane irritations to the general public." That wouldn't include mercury.

"There is no direct relationship between industrial contamination of that lake and its suitability for swimming," Matthews said.

Mercury levels in the lake have dropped by 95 percent over the past couple of decades, and Honeywell last November finished dredging 2.2 million cubic yards of contaminated lake bottom.

The biggest issue with mercury is that it builds up in the bodies of fish that people might eat, Matthews said. The state health department still has advisories in place for Onondaga Lake, urging people not to eat certain larger fish, such as walleye.

3 The lake smells and is full of gross algae.

"There hasn't been an algal bloom on the lake since 2007," Matthews said, "and that was just a minor bloom" found in less than 10 percent of samples."

When Matthews started studying the lake 18 years ago, he said, "major algal blooms — your pea soup kind of conditions — occurred 50 percent of the time. The lake was green, and what we call floatables — garbage and condoms and tampon applicators — would be floating in the lake after a storm. Now the water is much clearer and that type of garbage and waste has been dramatically reduced."

Major improvements to the county's treatment plant have slashed the amount of phosphorous flowing into the lake, which has reduced the algae. That's another reason the lake is swimmable today, Matthews said, because water clarity is one of the standards by which the state judges whether beaches are safe.

Onondaga County paid the Upstate Freshwater Institute \$21,604 for the report, said Mahoney's chief of staff, Martin Skahen. He said the report was commissioned to track the county's progress in meeting the requirements of the 1998 court settlement over the lake cleanup.