



Merrimack River group issues alerts warnings to boaters, swimmers

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NEWBURYPORT — On an unseasonably warm spring Saturday when many local people were out enjoying a downtown stroll along the Merrimack River, fishing from her banks, or reveling in the first bike ride of the season along her shore, a comparatively small handful of city residents came out to the Parker River Wildlife Refuge to find out if the water body that fuels the local economy and residents' active lifestyles is in fact healthy.

Has the shimmering beauty that fueled the growth of our region recovered from decades of abuse by riverfront industrial facilities that for years discharged waste into the river unchecked? Is it able to withstand the gallons of untreated storm water and waste that are still being dumped by municipalities upstream?

Probably not, according to representatives from the 30-year-old Merrimack River Watershed Council, an organization that prides itself in being the only source of consistent water quality monitoring of the river. In its "State of the Merrimack River" address, the council laid out for those attending the Earth Day-sponsored seminar the challenges that come with cleaning up the materials deposited in the river years ago. And they explained why there are some days of the year when it's not safe to swim or even boat in the river.

"Who knew that sometimes it's unsafe to go boating?" said MRWC Executive Director Christine Tabak, referring to a little known EPA standard that dictates how high bacteria levels can get before posing a health threat to boaters.

Over the past three years the membership-funded council has collected samples and, through its MAPP river stewardship project, has tested for E. coli and Enterococcus bacteria levels, water temperature, dissolved oxygen, pH or acidity levels, and a host of other health attributes not regulated by the state including conductivity, salinity, clarity and the amount of dissolved solids present in the water. The council's 2008 findings, derived from 23 sets of samples it took during 43 days of monitoring, prove the river is holding up in areas of temperature and acidity, but is not safe for swimming and boating during certain weather conditions.

"In dry weather the river is 100 percent safe for boating," said Tabak, "but it was only safe for swimming 95 percent of the time."

Since the test results aren't made available by EPA until weeks after the samples are submitted, said Tabak, that means if you swam in the Merrimack during dry weather last year, or weather marked by more than three days without rain, residents had no idea that one in 20 of those days conditions were unsafe to go swimming in the river. The wet weather findings were even more startling.

"Six percent of the time it was not safe for boating (per state standard last year)," said Tabak of any boating day that fell within three days of a rain event.

Sewage problems

The health threat, according to Tabak, comes from municipal wastewater systems of Lowell, Lawrence and Haverhill that are overwhelmed during rain events exceeding as little as one-third of an inch a day, resulting in those cities releasing plumes of untreated sewage and water (combined sewer overflows or CFO's) into the river. As the plume of concentrated waste makes its way downriver, higher than safe levels of E. coli accompany it.

Though the state has standards for unsafe levels of the fresh water bacteria E. coli and salt water bacteria enterococcus, it doesn't consistently test for either bacterium in the Merrimack, said Tebak, so residents have only their five senses to depend on when judging the safety of the water.

Another grim fact, Tabak said, is that state standards for safe E. coli levels are lax when viewed against standards set by other water quality governing agencies. If she were to measure the Merrimack River's E. coli levels against safety standards set by the 40-year-old Charles River Watershed Association, for instance, the river would be deemed unsafe for swimming and boating far more often.

Though the council provides through its volunteer motor boater fleet and membership dollars enough resources to provide some modest testing of the river, Tebak lamented that there are threats to the Merrimack River ecosystem she'd like to assess if there were more dollars available. The organization is anticipating a \$50,000 budget deficit that may cause the council to shut down entirely come June, she said, and despite the importance of the river to all those who enjoy it, she wonders who will take over the mantle of advocacy if the public doesn't step in to support the organization's work.

Last fall Tabak said the council was instrumental in discovering an E. coli "hot spot" in Amesbury's Powow River, a tributary of the Merrimack. Where the state limit of E. coli is 235 CFUs (colony forming units) per 100 milileters for that waterway, the council's tests revealed 198,630 CFUs per 100 milileter in the Powow River, which resulted in Amesbury being issued a letter of non-compliance from the Massachusetts Department of Environmental Protection. According to Tabak and MRWC Water Resources manager Tracie Sales, Amesbury is working on finding the source of that waste, which they believe to be an illegal connection either intentionally or mistakenly dumping waste into the river.

"It's a time-consuming and costly method to find out where bacteria is coming from," said Tabak, who explained that a broken sewage pipe under an old mill can prove a health hazard if the discharge system of that mill is still intact.

MRWC conducts testing of the river all the way up to the New Hampshire/Massachusetts border, focusing on troubled areas downstream that can exceed 2,300 CFUs of E. coli per 100 mililiters in areas around wastewater discharge sites like Haverhill. That plume makes its way to the cities downstream.

On Tabak's wish list is a Colilert system, which could provide sample test results of the river in just 24 hours instead of the months the group currently waits to receive them. The machine costs about \$20,000 to purchase and another \$10,000 a year to maintain. It's a tall order for the group that's struggling to stay alive through the coming year, but Tabek is optimistic. She plans to spend more time getting the word out of the group's work this spring, and through outreach she hopes people will contribute their time and money to keep testing the river.

She urged that helping the group can be as easy as owning a boat with a motor, since getting out on the water is integral to the group's work, but it doesn't own its own vessel.

"If you're going to be out on your boat anyway, and you don't mind taking a few people along, it's a great help to us," said Tabak.

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