

MID-MICHIGAN

Groups work to rid river pollution

Lake Isabella to test E. coli DNA

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Swim areas in Lake Isabella do not have high levels of E. coli, but village officials are working to find the source of the bacteria that is found in many water sources in mid-Michigan.

Village officials have been working for two years with the Central Michigan District Health Department to monitor E. coli in the man-made lake that was a section of the Chippewa River before a dam was built.

While E. coli, which is present in the Chippewa River in Isabella County and the Pine River in Gra-

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tiot County, is often linked to agricultural runoff, Village Manager Tim Wolff said officials don't know the source of the bacteria in the lake.

Working with Saginaw Valley State University, village officials hope to narrow down where the pollutant is coming from by testing DNA from *E. coli* that will be collected later this fall, to try to determine if the contamination is human or animal in nature, Wolff said.

Last year, working with the CMDHD, village officials were able to do weekly testing at beaches over a 12 week time span, and there were no issues at any of them, Wolff said.

This year, during a 10-week period, readings indicated the *E. coli* level was above the safe standard where the river enters the village at Rolland Road, for seven of those weeks, according to Wolff.

"Once the river enters the community and reaches the lake there is sufficient water to dilute the *E. coli* readings down to very low levels," Wolff said. "For both 2014 and 2015 all of our beaches safe every week of the summer.

"In the 11 summers I have worked for the village, I cannot recall there ever being a problem with any of our beaches."

A Saginaw Chippewa Indian Tribe environmental team tests Chippewa River water in several places for *E. coli* weekly, and readings at the School Road bridge crossing are typically the lowest downstream from Lake Isabella.

Wolff said.

In Gratiot County, the Healthy Pine River helps find ways to restore the health of the river, supporting the Gratiot Conservation District as it encourages farmers to plant buffer strips along waterways, group member Jane Keon said.

Keon also said the group supports the Mid-Michigan District Health Department in its decision to post caution signs near areas of the river people use for boating and fishing.

There are 23 Concentrated Animal Feeding Operations in Gratiot County, but Keon said Healthy Pine River is not anti-CAFO.

The group also supports Friends of the Pine River, which promotes recreation in the water.

However, Keon said, the bigger picture is that the group wants the same long-term result as Friends of the Pine River, for the waterway to be used as a river is meant to be used by the people and wildlife near it.

"That means the excess vegetation and excess sedimentation have to be removed, with preventative measures taken so that erosion and over-nuttrification in the Pine River and its tributaries does not recur," she said. "We have learned that we must work with out state legislature, too.

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As Wolff said, *E. coli* tends to become more of an issue downstream of

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Jane Keon, Healthy Pine River member

Lake Isabella, according to testing done by the Tribe.

Results of the latest testing, Sept. 15, show a daily geometric mean of 17 at the School Road bridge, and a 30-day geometric mean of 19.

At Meridian Park, the numbers increase to 53 and 120, respectively.

On the north branch of the Chippewa River near Meridian Road, the numbers jumped to 833 and 944, according to Tribal testing.

At Chipp-A-Waters Park, the numbers were 208 and 210, and at the Chippewa Road bridge crossing were 293 and 204.

State of Michigan water quality standards for daily geometric mean for safe levels is 300, while the 30-day geometric mean is 130.

In most places across the country, the promise of clean, cheap, readily available water has been taken for granted, but that has begun to change. Farm runoff has polluted municipal water sources, drought has taken its toll on reservoirs and wells, and the aging underground networks of pipes that carry water to homes and businesses rupture all too frequently. Just as with crumbling bridges or congested highways, the solutions don't come cheap.

The U.S. Environmental Protection Agency proi-

ects it will cost \$384 billion over 20 years just to maintain the nation's existing drinking water infrastructure. Replacing pipes, treatment plants and other infrastructure as well as expanding drinking water systems to handle population growth could cost as much as \$1 trillion. Without that investment, industry groups warn of a future with more infrastructure failures that will disrupt service, transportation and commerce.

Despite the need, the largest federal aid program for improving the nation's drinking water system has more than \$1 billion sitting unspent in government accounts, according to a review of data by the Associated Press shows. That is largely the result of project delays, poor management by some states and structural problems.

Adding to the concerns over a lack of investment, many parts of the country simply don't have enough water. Between the West and pockets of the Southeast, 71 million people are now affected by drought, according to federal calculations. And in a recent survey by the U.S. Government Accountability Office, 40 of 50 state water managers said they anticipate supply shortages in at least part of their states over the next decade.