

Even more studies will be done on the fish and other wildlife on or near the river at Alma and downstream from the Superfund sites on St. Louis.

Those tests will be supervised by Dr. Amanda Harwood, also with the college biology department.

Along with the studies at Alma, the river in Sumner, Elm Hall and Riverdale will be sampled and tested, as well as a spot in the northwest section of the county.

With all the testing however, the big question remains. Then what?

A quick solution appears most unlikely, Borrello said.

A woman in the audience asked if someone couldn't simply speak to the farmers or perhaps the golf course officials about the problem.

Borrello explained that the farmers weren't the problem.

The state's policy is.

"The farmers are not required to treat it," he said, noting along with others that most area farmers do not want to pollute their land or the water. But the state's regulations do not address the problems of too much manure.

Borrello urged the people in attendance to talk to their state legislators, who, he said, "deny its an issue."

He told of meeting with the former director of the State's Department of Environmental Quality and outlining the problems and the test results, including such high concentrations of antibiotics in the waste.

More than half the antibiotics manufactured, such as tetracycline, are used on animals, Keeton said.

Not long after that meeting, Borrello said, the director told an agricultural community that Michigan, "was the best state for CAFOS."

A solution to the problem, Borrello said, is, "a big mountain to climb."

Marcus Cheatham, health officer for the Mid Michigan District Health Department, spoke of a meeting with another DEQ official scheduled to take place at the college June 9.

He told of the need to challenge the DEQ's culture of being too soft on agriculture and industry.

"He knows about this," Cheatham said. "We have to tell them how we really feel."

Two other things were pointed out at the meeting: Alma's (or GARA's) water supply is "incredibly good" and the same problem with the Pine River is being seen all over the state and the country.

URL: <http://www.themorningsun.com/general-news/20160514/after-still-more-tests-will-a-solution-be-found-for-the-pine-river>

© 2018 The Morning Sun (<http://www.themorningsun.com>)

The Morning Sun (<http://www.themorningsun.com>)

## After still more tests, will a solution be found for the Pine River?

By Linda Gittleman, *The Morning Sun*

Saturday, May 14, 2016



With about 42,000 people in Gratiot County, the cities' sewage treatment plants and individual septic systems have been taking care of the human waste.

If say, another 600,000 people were to move in, the sewage plants and systems would obviously need a complete overhaul and an enormous expansion.

Gratiot has nearly 47,000 cows in the county, according to the U.S. department of Agriculture, and with the food they eat and the waste they create, that number of cattle would equal a population of 600,000 to 700,000 people, said Jane Keon, citing a study.

But there's no waste treatment facilities for animals.

Keon is a member of the Healthy Pine River group who attended a special meeting Saturday at Alma College.

Most farmers and operators of 27 concentrated animal feeding operations or CAFOs in Gratiot, have done what farmers have done for centuries: they spread the manure on the fields, said Murray Borrello, with the environmental studies program at Alma College.

Borrello conducted the Healthy Pine River session Saturday.

But with too many animals and not enough field, the run-offs are, it appears, finding its way into ditches and streams and ultimately, the Pine River at Alma.

The contamination can be seen in huge growths of algae and lilly pads in the river during the summer months, Borrello said.

Alma or the Gratiot Area Water Authority which also serves St. Louis, gets about 25 percent of its water from the river.

It has to be treated. The more contaminants found in the river, the more the water has to be treated, he said

Even though the river has changed significantly since the 1990s and tests have shown exceedingly high levels of e-Coli, antibiotics and nutrients, there are those who still maintain that most of the manure is coming from humans and/or perhaps fertilizer from the golf course.

In addition to the tests already done, Dr. Tim Keeton, with the biology department at the college, and his students will conduct still more tests this summer.

And this time they will be able to tell if the waste is human or animal.