

# Lakeview Area News

## Thursday, August 29, 2019

### **When it comes to bats, it's good to be cautious**

Bats are highly misunderstood and aren't quite as scary as horror movies make them out to be. They don't typically chase people down dark alleys and attack in swarms. Instead, they perform several important functions in nature. Insect eating bats eat thousands of pesky mosquitoes while fruit-eaters help pollinate plants and disperse seeds. However, bats are one of the most common animals in Michigan to transmit rabies, so it's a good idea to be cautious.

Rabies is a viral disease that attacks the nervous system and brain, leading to death if untreated.

Each spring and

summer a small number of bats test positive for rabies. So far this year 24 animals have tested positive for rabies in Michigan, 23 of which were bats. Warning signs that an animal may have rabies include nervousness, aggression, excessive drooling and foaming at the mouth, wild animals losing their fear of humans, and animals usually active at night being seen during the day. Rabid animals may not always look or act sick, so if a bite occurs, the animal should be tested.

Bats sometimes find themselves in our homes. Simply finding a bat in your house isn't cause for alarm. However, you should take the following steps if a bite occurs; or if a bat is found near a sleeping person, a child, or someone who is mentally

impaired or intoxicated:

Do not let the bat go. Capture the bat in case it needs to be tested. Keep in mind that rabies testing is done on the brain, so be sure not to damage the head. While wearing a pair of leather gloves, wait for the bat to land and then approach it slowly. Place a box or coffee can over the bat. Slide a piece of cardboard with holes punched in it (to allow the bat to breathe) under the container to trap the bat inside. Tape the cardboard securely to the container. Call the Mid-Michigan District Health Department at 989-831-3615.. Communicable disease nurses at the Health Department will assess your risk and determine if the bat needs to be tested. Please do not bring bats to the health department without calling first.

# Pine River Woes Worsen

**By Emma Selmon**  
**Herald Staff Writer**

Boating on a river sounds like a nice activity for a beautiful summer's day.

Except when that river is so choked with algae and aquatic vegetation that the motor won't push you — so thick you can't even oar through it.

But that's exactly why Murray Borrello was there.

In many ways, it was just another day for the director and chair of the Program of Environmental Studies at Alma College. For the past 17 years, Borrello and his colleagues have been monitoring and doing research on the Pine River. He went out on that August day to measure the dissolved oxygen levels up and down the waterway — a fairly routine procedure.

But he can usually get the boat to move.

"It's the worst I've ever seen," he said. "I've never seen the river this bad."

## **"Precipitous deterioration"**

Borrello has had little to be optimistic about in his work with the Pine River over the past two decades. He's watched as unnaturally high nutrient levels have caused an explosion of algae and aquatic vegetation and as E. coli concentrations have skyrocketed, signaling the "precipitous deterioration of a very fine watershed."

So when St. Louis residents raised concerns about the "swamp-like" state of the river near Michigan Avenue in early July, Borrello was not surprised; he was ready to help.

*See RIVER on page 4*



Courtesy Photo - Murray Borrello

Borrello engaged his summer research students to try to find the source of the nutrients — high levels of nitrogen and phosphorus — that are feeding the algae and aquatic vegetation in St. Louis. While he will continue to gather data into the fall, he said the preliminary results seem to confirm last summer's findings: the nutrients probably are coming from not the Pine River itself, but from other inlets.

They have identified two tributaries, Sugar Creek and Horse Creek, that seem to be the main source of the nutrient pollution. Those creeks also yielded some samples that were very high in thermotolerant *E. coli*.

There are a couple of possible origins for the nutrients in the Horse Creek inlet, Borrello said. The tributary flows near the Evergreen Village mobile home park, so it is possible that the pollution is either

coming from a potential leak in the village's communal septic system or from a source further upstream.

But the "primary culprit" of the St. Louis algal blooms seems to be Sugar Creek, the tributary Borrello and his researchers identified last summer. He said the high nutrient levels and *E. coli* counts suggest that "a lot of manure" is entering that inlet — and that St. Louis' problem is likely a result of agricultural runoff.

**Human or livestock waste? A fecal feud**

A heated debate surrounds the question of where the majority of the nutrients and the *E. coli* come from. Improperly treated human waste and agricultural runoff are both known sources of nutrients and bacteria, and there is disagreement across the county about which is the

more pressing concern.

Complicating the debate is the difficulty in pinpointing exactly where the pollution originates. While the concentrations of nutrients and *E. coli* can be measured, those tests alone can't identify the pollution's source. And while a relatively new technology called fecal source tracking promises to genetically identify what species fecal pollution comes from, not all scientists trust the test.

Tim Keeton is an associate professor of biology at Alma College who consults with Borrello on the Pine River problem. His experiences with fecal source tracking over the past two years leave him "skeptical" about its reliability. He said the technique is "very difficult" to perform correctly and is not at all "ready for primetime."

"By the time you get to a conclusion, you have so manipulated the data that you get from your tests that I have a lot of concerns about biases creeping in to these tests," Keeton said.

Despite the lack of a surefire test to determine the source of the pollution, both Borrello and Keeton are convinced that agricultural runoff is the larger contributor. Neither scientist denies that there are issues with human waste contaminating the river: the recent news of the human waste pollution near Riverdale, for example, can't be ignored. But for the scientists, the question is a matter of scale.

Gratiot County is one of the few counties in the state of Michigan that has both more cows and more pigs than people. Recent census data estimates the human population of Gratiot County at 40,599; the United States Department of Agriculture (USDA)'s 2017 Census of Agriculture places the number of cattle and calves at 54,333 and the number of hogs and pigs at 46,355.

Taking into account that those animals both produce significantly more waste than humans, Keeton said that even if all human waste in the county was untreated, he would

still expect that to have less of an impact than the livestock's waste. And considering that a good amount of the county's human waste does go through a municipal wastewater treatment plant like Alma's, he has no doubt that human waste accounts for only a small portion of the contamination in the river.

"When you again consider the relative numbers, the number of humans pooping in Gratiot County and the number of human equivalents of cattle pooping in Gratiot County, I would certainly put money on the fact that the majority of our problem here is cattle," Keeton said. "That's just a simple little mind experiment, but that's all we have to go on right now."

**Michigan Ag: "Bad eggs" in every industry**

Michigan's agriculture industry is well aware of their responsibility to help protect the environment, according to Erica Rogers, an environmental management educator with MSU Extension. She thinks that the several programs, resources and regulations that are in place for farmers sometimes go unnoticed.

From voluntary conservation practices to the requirements to which Concentrated Animal Feeding Operations (CAFOs) must adhere, Michigan agricultural resources cover virtually all areas of farming, she said.

Many best-practice recommendations are laid out as a part of Michigan's Right to Farm Act, which was adopted in 1981. The Michigan Department of Agriculture and Rural Development (MDARD) publishes a series of Generally Accepted Agricultural Management Practices (GAAMPs) that address a wide-range of farming practices. These voluntary recommendations are reviewed and updated annually by representatives of multiple institutions.

The GAAMPs are extensive. The Manure Management and Utilization GAAMPs, for example, include recommendations about runoff con-

trol and wastewater management, odor management, land application, and construction and design of manure storage facilities, Rogers said.

While farms are not required to follow the GAAMPs, it is beneficial for them to do so, she said. If they are faced with a nuisance complaint, following the GAAMPs offers them a certain level of protection.

And farmers who want to go the extra mile can participate in the Michigan Agriculture Environmental Assurance Program (MAEAP), a voluntary program which helps farmers assess and reduce their environmental risk, said Ben Tirrell, MDARD's Right to Farm program manager.

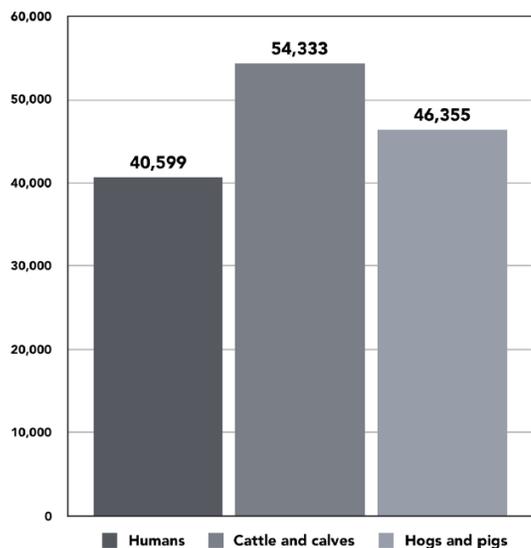
Referencing the MAEAP program, Tirrell said he thinks Michigan does "a better job" than a lot of neighboring states when it comes to "agricultural stewardship" — and that programs like this demonstrate that Michigan agriculture "is committed to doing its part" to protect the environment.

"Almost 3,000 farms have gone through a program that's been thrown money and time to take all these conservation measures, out of no other reason than to do the right thing," Tirrell said. "I think it's a great story and I think our program works well, and our colleagues at EGLE [the Michigan Department of Environment, Great Lakes, and Energy], I think do a good job."

Unlike non-permitted farms, CAFOs are subject to a rigid set of requirements from the Environmental Protection Agency (EPA) and EGLE, formerly known as the Michigan Department of Environmental Quality (DEQ). Defined in the Clean Water Act as "point-source" dischargers, CAFOs must have a National Pollutant Discharge Elimination System (NPDES) permit issued by the state to help protect surface water quality, said Bruce Washburn, the environmental quality specialist with EGLE's Water Resources Division.

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**Gratiot County Population Comparison: Humans and Livestock**



CAFOs must also have a Comprehensive Nutrient Management Plan (CNMP), an extensive document which is a record of all things to do with nutrient and manure management, Rogers said. CAFOs typically hire in a consultant to write the “huge” document, which includes information about manure and soil nutrient content, field and facility maps, manure storage structure information, conservation practices, and emergency action plans.

CAFOs that produce more waste than they can use are allowed to transfer the manure to another producer by means of a manifest, a document that serves as a record for the transfer, Washburn said. It includes information about the amount and the nutrient content of the waste as well as statement informing the recipient of their responsibility to handle the manure properly and legally.

In a nutshell, the amount of waste that CAFOs can legally spread on their field is limited — and direct waste discharge to a waterway is illegal for any farm, Rogers added. And, Washburn said, if a CAFO is following all rules and regulations in good faith, all of their waste should be accounted for.

Rogers said that for all farms, there is “a lot more than people realize” in terms of recommended practices and regulations — and while there are “bad eggs” in every industry, farmers are generally good people who are “trying to do the right thing.”

“I find myself going to bat a lot of times for farmers because I want people to understand that there’s a lot more that’s done in farming and agriculture, I think, than meets the eye sometimes,” she said. “And so again, it’s not that everybody’s doing a good job of that in the community as far as agriculture is concerned, but there are a lot of people that do.”

**Continuing concerns**

Borrello and Keeton also have faith in the farmers, agreeing that most try to do the right thing. The scientists emphasized that they aren’t blaming the farmers for the river’s problems: they think that the existing guidelines and regulations are ineffective.

Some of the concerns surround CAFO compliance monitoring. Washburn said that self-reporting is utilized to monitor compliance to the NPDES permit largely because of the huge number of CAFOs in the state, which includes 26 permitted facilities in Gratiot County.

“We recognize that with the thousands of permitted facilities, in addition to other responsibilities, there are not enough resources to have staff dedicated to fulfilling the reporting requirements,” Washburn said.

Compliance is also monitored through complaint response. Under the Right to Farm Act, MDARD is the organization to respond to “nuisance complaints,” but farmers can refuse to let MDARD officials enter their property. In that case — or in the case that of a clear environmental violation — an EGLE representative will investigate the claim.

But Jane Keon, a founding member of the Healthy Pine River group, says that EGLE representatives often can’t get to waterway sites quickly enough.

“That’s been frustrating here because in the past, we’ve had citizens see something, report it, and three days later, when EGLE gets here to sample the water, of course the poop has all moved downstream by then,” Keon said.

Washburn said that EGLE responds to complaints “as quickly and diligently” as possible. And while the department can’t “deputize” citizens to collect samples for them, they “appreciate any information the public may provide” when they report.



**Unnaturally high levels of the nutrients nitrogen and phosphorus cause the algal blooms and excessive aquatic vegetation. (Herald photo-Selmon)**

Borrello, for his part, thinks the issue is bigger than a few individual compliance issues. He maintains that the existing rules and recommendations simply aren’t effective. He said that while there is “some value” to them, he and his colleagues believe that overall, they “do not protect the environment from these nutrients and from potentially risky levels of E. coli.”

“In a way, putting the waste on the field, knitting it into the soil does lock it to some degree and provide nutrients to some degree for the crops, so it is better than just dumping it in,” he said. “Our findings have been there’s just such an overwhelming volume of nutrients and waste from CAFOs in this county and other places in the state that the environment simply can’t handle that amount.”

And Borrello’s claim isn’t an abstract musing: a research student of his is currently working on calculating the county’s manure “saturation point.” Utilizing a model used by the University of Iowa, Alma College student Chelsea Faber is comparing the nutrients produced by CAFO animal waste to the nutrient needs of the county’s crops. The project is part of a collaboration between Alma College and the Michigan Environmental Council, Borrello said.

Though the specific numbers are not ready for publication, he can say with confidence that the CAFO waste alone in this county — even without including contributions from other waste or chemical fertilizers — contains too many nutrients for the environment to handle.

“We can safely say that we believe from our data that just CAFO waste is producing more nutrients per acre than what is needed by the crops that are grown in this county,” he said.

**Struggles and solutions**

Rogers, the MSU extension officer, said that it is “completely fair” to ask if Gratiot County simply has too many animals. But for her part, she is focus-

ing on helping to minimize the impact of agriculture as it exists now. She said the many factors that have led to the high concentration of animals in the county complicate the search for a solution.

Rogers explained that society has a “Walmart mentality” when it comes to eating habits: people want “cheap food” that’s “easily accessible.” But this push leads to a “cyclic” relationship with the food production industry, creating a persistent demand for cheaper food and resulting in more CAFOs.

“It’s a lot bigger scope than just [saying] ‘Well, we can’t have any more animals here,’” Rogers said. “It’s eating habits of people, it’s what people are willing to pay... There is a complete shift that has to happen nationally — worldly, in that sense.”

Borrello agrees. While he believes that there are a number of feasible solutions to Michigan’s river woes, he said they all inevitably will lead to increased food costs.

“It just is the way it is — I don’t know how you get around that,” he said.

Borrello said he believes there are four realistic solutions to addressing excess CAFO waste in Michigan, the first of which is to build wastewater treatment systems for such operations, treating CAFOs like “small cities.”

This move would make the CAFO regulations more closely aligned with other point source pollution dischargers, like factories and municipal wastewater treatment plants, he said.

A second solution would follow an example set by the European Union: limit the size of CAFOs and the number allowed to operate in a given area based on calculations of what the environment can handle. Currently, there is not a limit on how many CAFOs can operate in Michigan, or on how close they can be to one another, Borrello said.

Another option would involve dehydrating excess waste to eliminate E. coli and other bacteria and use it in “some sort of end

product.” And the fourth option would be to build biogas facilities with anaerobic digesters that produce methane — natural gas — that can be used as an energy source.

Borrello said that the biogas facility solution is popular among many in the farming community, but is far from an ideal solution from an environmental perspective. Not only are anaerobic digesters finicky machines, but they contribute to climate change by burning greenhouse gases.

There is also a fifth solution — one that would involve another major societal shift.

“We need to eat less meat,” Borrello said.

The best solution, however, probably lies in a “combination of these possibilities,” he said.

“I think that would effectively take care of the problem,” he said.

Both Borrello and Keeton pointed out that any successful solution to the nutrient pollution and E. coli contamination in the river has to come from the top down: they said it is unfair and unrealistic to expect farmers to be able to make such drastic changes without support — and financial assistance — from the government.

While there’s no easy solution, the scientists agree that it’s imperative to take more steps towards addressing the nutrients and E. coli in the river as the problem continues to worsen. From the data he’s gathered this summer, Borrello said that even areas of the river that were relatively clean a few years ago are now showing the effects of the pollution.

“I think it’s safe to say that there is really no part of the watershed from the absolute headwaters to St. Louis Dam that is not heavily impacted by agriculture,” he said.

Keeton said the evidence that we need a change is right outside.

“It’s obvious that [the current system] doesn’t work the way it’s intended,” he said. “All you have to do is look at the river.”

## *Riverdale’s Grassroots Attempt Scorched*



**Riverdale citizens’ group chairman Bob Lombard chastizes Mid Michigan District Health Department at the Board of Health meeting. (Herald photo - Horvath)**

**By Rosemary Horvath  
Herald Staff Writer**

Convinced their summerlong, boots-on-the-ground-systematic-approach to identify and then remove failing septic systems in Riverdale had produced a win, members of a citizens’ committee instead got sucker-punched last week.

Committee chairman Bob Lombard learned from reading the Aug. 28 Board of Health meeting packet that disbelief still reigns inside the Mid Michigan District Health Department and the Michigan Department of Environment, Great Lakes, and Energy’s Water Resources Division.

In response, Lombard filed a Freedom of Information request with the MMDHD requesting explanations to charges made by WRD Acting District Supervisor Cheri Meyer in a certified letter dated Aug. 26.

*See SCORCHED on page 8*

## SCORCHED *continued from page 1*

Meyer, in the letter to Seville Township, hinted disappointment that the citizens' committee "was developed to investigate and eliminate all unlawful discharges into the Pine River, rather than implement a long-term, community-wide solution."

The state department has recommended some type of community wastewater treatment system to replace individual septic tanks and drain fields.

However, local officials and residents alike argue Riverdale alone is ill-equipped to pay for constructing a treatment system, let alone maintain one in years to come, even if government funding was made available upfront.

EGLE hasn't indicated whether it proposes a system to service other areas of Seville Township and nearby Sumner Township to create a larger customer base.

Lombard expressed disappointment, explaining that he was misled in believing the citizens' committee and MMDHD had a working relationship. He previously had asked BOH chairman George Bailey for information that was never provided. Bailey was absent from the meeting but on speakerphone for portions. He did not respond to Lombard's assertion.

Also absent from the BOH meeting was Gratiot Commissioner Chuck Murphy and Montcalm Commissioner Adam Petersen.

Lombard claimed Riverdale has "excellent soil" for drain fields and the one catch basin registering high levels of E.coli bacteria in fact has crushed tile and performs "like a toilet" by not moving the flow of liquid along. "There is no way to flush out the drain until the tile is fixed," he said.

He reviewed action taken by the committee to stop the pollution as soon as a source was discovered. Seven of the 11 properties were taken offline and documented with photo verification.

Riverdale's population of "234 individuals tried to do the right thing but the health department and EGLE have not operated in good faith," Lombard charged.

Seville Township Supervisor Tish Mallory, who was appointed to the position in February, said seeing a copy of the second EGLE violation notice in the meeting packet "came as a complete surprise" because she had not yet received the certified letter herself.

She also reprimanded the health department for testing drains in Riverdale in late 2018 into 2019 without notifying the township. Had the township been put on notice action would have been taken sooner to locate sources of pollution, Mallory said.

By the time information was shared, the ground was frozen and work delayed.

Since then, the citizens committee has reached out to every property owner. Township Trustee Doug Brecht has mapped out both county and "orphan" drains. Mallory went on to explain to the board an engineering firm will investigate all options. "We want to know what is best for Riverdale," Mallory said.

In the second notice violation, Meyer rejected a township board statement made in July that eight percent of the Riverdale properties fall in the category of violators. And that this group had voluntarily capped their septic tanks and was paying for a pump and haul service.

She indicated in the letter that the MMDHD and EGLE have "ample documentation that appears to dispute this claim."

Meyer noted that 68 of the 122 properties (Lombard indicates Riverdale has 124 parcels) do not have an approved, permitted septic system. Eleven of these permits are older than 30 years and 22 are older than 40 years, she states.

Also, she asserted soils in Riverdale are not conducive to septic systems and neither are property sizes.

"MMDHD continues to receive complaints of properties with failed septic systems," she noted in the letter, and that samples taken in August in catch basins in two locations showed concentrations of E.coli in excess of acceptable levels.

The notification goes on to order the township to submit a detailed response by Sept. 25 addressing a long-term strategy for solving the failing and inadequate septic systems.

Lombard FOI request is directed at MMDHD Environmental Health Director Liz Braddock who is asked to list "specific information" she provided to EGLE about Riverdale septic systems.

Lombard listed 10 questions where he suggests Meyer has been provided misinformation.

He suggests Braddock is responsible for "misleading and factually wrong statements attributed to you personally or your department in general."

Lombard asserted the basis of EGLE's continued push for a municipal sewer system is based on information the MMDHD provided.

# Gratiot County Herald

Thursday, September 5, 2019

## Residential Wells Tested for Chemical Substances in Alma

### GASEOUS FOAM USED TO EXTINGUISH REFINERY FIRES IS CULPRIT

By Rosemary Horvath  
Herald Staff Writer

Testing of four residential wells in Alma for PFASs continued this week by the Mid Michigan District Health Department and Michigan Department of Environment, Great Lakes, and Energy.

The location of the wells is adjacent to Horse Creek along Lincoln Road near the former site of the Total Petroleum Refinery that operated from 1938 to 1999. The current owner of the property is MRP Properties, a national operation with an Alma office.

There had been multiple fires on-site during Total's operation when a gaseous film-forming foam was used to extinguish the flames. This substance has been identified to have contained harmful chemicals.

Multiple sites have been tested throughout Gratiot County, and nationwide. So far, only a former landfill operated by the city of Ithaca showed measurable levels.

PFASs are man-made chemicals identified as Per- and poly-fluoroalkyl substances. More than 4,000 PFASs have been used in technical applications and consumer products, such as the fire foam. A potential health concern over continued human and environmental exposure has alerted state and federal agencies.

Testing at the Alma site began in June and this week's sampling is phase four.

A total of 64 samples have been taken so far during six separate occasions. In November PFA plumes were identified to exist around the fire-fighting areas, as reported on the PFA Michigan website.

Last February, MRP Properties filed a Phase 4 investigation work plan which received verbal approval from EGLE in March. Included was the installation of three wells on the property which showed no detection of PFAs.

See *CHEMICAL* on page 5

## CHEMICAL *continued from page 1*



Nearly 70,000 gallons of foam was used to douse a fire at the Total Refinery on January 9, 1992. (Herald archive)

Liz Braddock, Environment Division Director at the district health department, indicated at the Board of Health meeting last week her office and EGLE also are sam-

pling locations in Clinton, Ionia, and Montcalm counties.

PFASs, so far, have not been detected in the four residential wells in Alma.

## Riverdale 'Posse' on Hunt for Unlawful Septics

Posted on Wednesday, September 11th, 2019 and is filed under [News](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. You can skip to the end and leave a response. Pinging is currently not allowed.



Riverdale resident Mike Miller watches as smoke escapes from catch basins at each corner of River and Fourth streets, indicating drains are clear.



Wastewater Technician Matt Lumbert positions a blower over a Lumberjack Road manhole in Riverdale Friday, Sept. 6. (Herald photos – Horvath)

### By Rosemary Horvath Herald Staff Writer

Members of a citizens committee accompanied Matt Lumbert in Riverdale last Friday as he tested storm drains with smoke to pinpoint blockages, damaged tiles, and leaks emanating from plumbing emptying into storm drains.

Lumbert is a wastewater technician with the Michigan Rural Water Association headquartered in Okemos, whose membership consists of municipal water and wastewater utility facilities. This organization provides its members with resources, education, and networking. For example, the city of Alma and the village of Ashley are among the more than 500 municipal members.

Although Seville Township doesn't operate such a facility, the Township Board of Trustees voted to join the association to help guide a Riverdale-based group investigating illegal sewage connections connected to drains

and sources of E. coli bacteria showing up in catch basins.

This action developed after the Michigan Department of Environment, Great Lakes, and Energy cited the township for violating state law and ordering a remedial plan that, more than likely, would have to include a municipal treatment wastewater system for Riverdale residents.

Property owners in Riverdale have filed a signed petition with the township board objecting to anything other than replacing malfunctioning septic tanks and drain fields.

The smoke tests marked the second visit Lumbert has made to Riverdale, besides attending township board meetings. He said the residential connections identified at the first go-around have been disconnected. The testing on Friday further verified that conclusion.

Mikie VanHorn and township trustee Doug Brecht, two members of the citizens committee, snapped images of Lumbert fitting a high-capacity blower over manholes that ejected smoke through to catch basins blocks away.

Resident Mike Miller assisted Lumbert as a volunteer.

“Normally I’m doing sanitary sewers,” explained Lumbert, “to keep infiltration of rainwater out or finding where people have hooked house drains into the storm drain.”

At one time, these connections were permissible. As the costs of treating wastewater grew, recognizing treating rainwater simultaneously was a wasteful expense. Municipalities have slowly separated storm drains from sewer drains.

A smoke test can also discover where eavestroughs and downspouts from houses are damaged, or where broken sewer cleanouts buried in yards are broken off from a lawnmower, Lumbert said.

River Street resident Richard Fisher greeted Lumbert and the group outside his garage near where a catch basin had been buried and covered over.

“I’ve lived here for 30 years and never knew that was buried there,” he said.

Its discovery was part of the mapping Brecht and others did of locating township drains and county drains. The township board recently adopted a resolution to transfer all the “orphan” drains in Riverdale over to the county to maintain going forward.

# Lakeview Area News

## Thursday, September 12, 2019

### Hearing and Vision Team Gearing up for another Successful Year

By Leslie Kinnee, Public Information Officer at MMDHD

Children are usually pretty good at expressing their wants and needs. If they are hungry, they tell their parents so. If a scraped knee is causing them pain, they cry and point to their wound. If they want to cuddle, they climb up on a loved one's lap. If they are overly tired, their whiny, grumpy disposition is a dead giveaway. But when a child can't see or hear as well as they should, they are not always able to express it because they are unaware themselves that there is a problem. Many children start school with these undiagnosed issues, which greatly affects their ability to read, pay attention, follow directions, and learn. But school achievement isn't the only thing that suffers in this type of situation.

Hearing and vision difficulties often lead to behavioral problems as well, which creates a host of additional problems at school, at home and in the community. Diagnosing these problems at an early age is so important. That's why the Mid-Michigan District Health Department (MMDHD), in conjunction with the Michigan Department of Health and Human Services (MDHHS), has been conducting free hearing and vision screenings for pre-school and school-age children for over 60 years.

Making sure that children in are seeing and hearing properly is a job MMDHD takes very seriously.

"Our three trained Hearing and Vision Technicians are committed to providing all children in our district with the highest quality hearing and vision screens to ensure they have the skills to succeed in school and in life," said MMDHDs Andrea Tabor, Community Health and Education Division Director.

The Health Department's Hearing and Vision trio has over 38 years of combined experience and screens almost 22,000 students a year. They each have their own unique passion for kids and work hard to ensure they provide the best service possible.

For Hearing and Vision Technician Mary Wallen, who screens children in Clinton County, identifying a hearing or vision loss is very rewarding and why she loves her job so much. According to Wallen, children are very good at accommodating for hearing and vision losses and it's often difficult for a parent to know if their child has a problem until they are screened. "We find hearing and vision deficiencies on a daily basis," she said, "And I cannot wait to screen that child again later in the year, because when I do, there is a good chance the problem will have been corrected, or that there is a medical professional

working towards the best possible outcome. It's such a great feeling to know I made a difference in a child's life!"

Jeannette Sternhagen is the Hearing and Vision Technician serving Gratiot County. For her, helping kids in the community see and hear better is what makes her job so worthwhile. "I have had kids come up to me all the time in the store to show off their new glasses, some even point out how much better they can see, said Sternhagen. "One child told me they never knew there were lines on leaves before! He didn't even realize he had poor vision, but now he's seeing things in a whole new light."

Stacey Peterman, Hearing and Vision Technician in Montcalm County, is thrilled each time she gets positive feedback from principals, teachers and parents. But what really gets her excited is when she hears specific success stories, one of which has made a lasting impression. Several years ago, she received a heartfelt thank you letter from a parent who had struggled with her son's behavior in school.

They had him tested for Attention Deficit Hyperactivity Disorder, and Attention Deficit Disorder, trying to get to the root of the problem.

(continued on back page)

# Hearing and Vision Team Gearing up for another Successful Year

(continued from page 5)

It was frustrating for this mom to try to figure out how to correct the problem. That's when Peterman discovered a problem with the child's vision during a routine screening. After months and months of psychological testing, this mom finally had the answer she was searching for--- her son didn't have a disorder, he just needed glasses! He had not been able to follow along in class because he couldn't see the board. His frustration led to him to act out, which is common in this type of situation. The parent was relieved and extremely thankful that Peterman was able to provide the service and was happy to report that the child is now on track with his grades and his behav-

ior. Michigan law requires the Hearing Screening Program to test children at least once between the ages of three and five years and every other year between the ages of five and ten. Goals of the program include identifying hearing loss as early as possible, reducing preventable hearing loss and ear disease, identifying hearing impaired children so their educational, medical and social needs can be met, and helping parents and school personnel understand the child's hearing loss needs. Early identification of hearing problems is critical as it can alleviate speech/language, social/emotional, academic and psychological delays.

Michigan law also requires vision screening of pre-school children at

least once between the ages of three and five years, and school-age children in grades one, three, five, seven and nine, or in conjunction with driver training classes. Early identification of vision problems is equally important, as it can lead to the discovery and treatment of

conditions like amblyopia, or lazy eye. The vision screening tests for clearness of vision, eye muscle balance, nearsightedness, farsightedness, and symptoms of other eyesight problems.

For more information on the Health Department's Hearing and Vision program visit [www.mmdhd.org](http://www.mmdhd.org) . Mid-Michigan District Health Department serves the residents of Clinton, Gratiot and Montcalm Counties.

Pictured are MMDHD's Hearing and Vision ladies:

Back row l to r: Jeannette Sternhagen, Mary Wallen and Stacey Peterman (seated).

See the story to the right entitled "Hearing and Vision Team Gearing Up for Another Successful Year."



## GRATIOT

# Testing reveals 'disgusting' Pine River

'Nothing's being done'; inordinate influx of E. coli has researchers looking for solutions

**By Linda Gittleman**  
For the Morning Sun

After it rains, the Pine River more or less turns into a sewer. Sometimes it's a whole lot more and just a little less.

"The river is polluted, it's impacted, it's not safe and nothing's being done," said Murray Borrello, Alma College geology professor of a broader and more extensive series of tests recently conducted in various parts of the county's watershed.

Borrello spoke to the Healthy Pine River group and said that since the Pine flows into the

Chippewa and Tittabawassee rivers, it affects them too. Tests conducted by Alma College students and volunteers this summer found "enormous quantities of E.coli" in the river, he said.

They also investigated the algae blooms in the river in St. Louis.

"This was not happening ten years ago," he said.

But it's the water from Horse Creek and Sugar Creek that appear "by far the dominant sources," of that St. Louis pollution, he said.

Those creeks take on manure from CAFOS (concentrated animal feeding operations) at extremely high levels and eventually enter the Pine.

Unit measurements of E.coli colonies of more than 500 — on average — is not considered safe

TESTING » PAGE 2



LES ROSAN — FOR THE MORNING SUN

In recent years the Pine River in Gratiot County has degraded due to an influx of septic and agricultural waste.

# Testing

FROM PAGE 1

by the state. The students found readings of 1,750 and 2,500 in the creeks.

"This is horrible; this is disgusting," he said. "And it's coming from humans or livestock."

So as one way to determine where and how the manure was coming from, the researchers observed the spreading of manure at a factory farm near the head of Sugar Creek.

"(The manure spreaders) did a good job," he said. "It didn't smell."

Borrello believed that the CAFO owner obeyed all the rules and wasn't "just dumping the manure" on the land.

"Overall, it looked really good," he said. "The farmers are doing due diligence."

The trouble is, "the rules don't protect the environment," he said.

The next morning it rained and testing on the river proved that the nitrogen and phosphorous levels doubled and the E.coli levels measured from 1,700 to 2,800.

"Farmers," he said, "are doing it right but (the rules) are not working."

Borrello explained that waste from a (failed) residential septic system would not move that readily during a rainstorm. The rain couldn't force the sewage out. And the water would dilute it

But from a farm, a rainstorm easily washes the waste from the drain tiles and it's just like flushing a toilet, he said.

"E.coli increases after a rain event," he said. "There's no place not impacted with E.coli."

In 2016 the state con-

ducted a study and learned that 72 percent of its rivers are impaired, he said.

"We're not really any different," he said.

And later it was pointed out that the Pine River is not by any means the worst river in the state.

Even so, Borrello said that by using a model to calculate livestock waste, the manure from Gratiot's CAFOS, was generating at least 134 million pounds of animal waste per year in the county.

The manure, he said was "many times more" than needed to fertilize the crops.

Some waste too, goes out of the county but it isn't known how much.

Not surprisingly, a discussion centered on what could be done. And Borrello said that he'd heard of a dairy farmer who developed his own waste water treatment facility.

But if all the farmers were to do that, food costs would likely skyrocket.

Meanwhile, as pollution continues, riverfront property values decrease and recreational opportunities on the river disappear.

No one wants a choice between food and clean rivers so whatever would be done to clean the waterways would have a cost to it, he said.

For his part, founder of the group Gary Rayburn said they will not give up and will continue the fight for a healthy Pine River.

And, while the group has 165 members, about 300 are needed in order to "talk to the state government." So he's actively seeking new members and is encouraging residents to join.

Those interested may send a \$5 membership fee to Healthy Pine River at P.O. Box 993, Alma, 48801 or call Rayburn at 989-330-3686.

# Gratiot County Herald

Thursday, September 19, 2019

## Foundation Invests \$79,500 in Local Programs

The Gratiot County Community Foundation closed its final grant cycle of the fiscal year by awarding more than \$79,500 to support existing programs, launch new programs, purchase emergency response equipment, expand educational opportunities and more. For a complete list of grants awarded, visit [www.gratiotfoundation.org](http://www.gratiotfoundation.org).

The next application cycle will close on October 1st. Registered non-profit organizations are encouraged to apply for grants funding programs that improve the quality of life for residents in Gratiot County. Funding priorities include, but are not limited to: Emergency Services (police, fire, rescue and medical services); Youth Programs; STEM Programs (Science, Technology, Engineering and Math); Community Development and Improvement Programs; and Homebound Senior Citizen Programs.

For a copy of the application and policies, visit [www.gratiotfoundation.org](http://www.gratiotfoundation.org). A single, unbound, hard-copy of proposals must be received or postmarked by October 1st in order to be considered for funding. The Foundation's mailing address is P.O. Box 248, Ithaca, MI 48847. Deliveries should be made to 168 E. Center St., Ithaca, before 4:30 p.m. With questions or for more information, contact us at (989)875-4222 or at [bacre@gratiotfoundation.org](mailto:bacre@gratiotfoundation.org).

GCCF Awarded \$54,834.60 During its  
*Spring 2019 Grant Cycle*

*Alma District Fire Department received \$7266 for the purchase of a dive and water rescue trailer.*

*Alma Public Schools received \$1000 for the Project PAWS childhood hunger program. Ashley Community Schools received \$548 to acquire technology for the marching band program.*

*Ashley District Library received \$640.60 for new fiction and nonfiction books.*

*Child Advocacy received \$880 for the Court Appointed Special Advocates (CAS) program Planting Hope for Children.*

*Clinton-Gratiot Habitat for Humanity received \$3000 for the Rock the Block neighborhood revitalization project.*

*Girls on the Run Central Michigan received \$2000 for scholarships for students in need.*

*Gratiot County Sheriff's Office received \$5000 to acquire Tru Narc technology.*

*Gratiot Emergency Housing received \$1600 for housing and utilities expenses for those in need.*

*Ithaca Public Schools received \$1500 to fund publications of the 5th grade book about local veterans.*

*Ithaca Public Schools received \$3750 for woodshop equipment modernization.*

*Lincoln Road United Methodist Church (designated emergency shelter location) received \$5800 for a generator.*

*Mid-Michigan District Health Department received \$4000 for the Prescription for Health program.*

*St. Louis Public Schools received \$4500 for high school STEM programming.*

*St. Louis Public Schools received \$13,350 for woodshop equipment.*