

FOR IMMEDIATE RELEASE

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## **SECOND ADRIAN DRINKING WATER TAP TESTS POSITIVE FOR CYANOBACTERIA; 2 TEST POSITIVE FOR BACTEROIDES**

Adrian, Michigan (Dec. 31, 2018) - The second batch of test results for cyanobacteria (blue-green algae) and one of the toxins it can produce, microcystin, taken from City of Adrian residents' drinking water taps, is now available. Of six taps tested, cyanobacteria was found at one site and Bacteroides<sup>1</sup>, an indicator of fecal contamination, was found at two sites. No microcystin was found at any site. This brings the total amount of positive cyanobacteria tests of the City's tap water to 2 of 9, or a little over 22%, same for Bacteroides.

Taste and odor problems in Adrian's drinking water have been reported for several years. Adrian draws its drinking water from two sources: Lake Adrian, created by damming Wolf Creek, and several drinking water wells. Cyanobacteria, the blue-green algae that can produce the microcystin toxin that shut down Toledo's drinking water system in 2014, and other bacteria are recurring problems in Lake Adrian. Two compounds that are produced by cyanobacteria and algae when they die, geosmin and 2-MIB, were identified by City officials as a possible reason for the odor complaints. Skin rashes and other symptoms associated with cyanotoxin exposure have also been reported.

Brittney Dulbs, one of the many Adrian residents who is still experiencing problems with her tap water, said she looks forward to sharing more information about the problems still happening in Adrian with Federal, State and local agencies and the City as soon as possible. The City needs to provide safe, clean water. More testing is needed, but the money from donations received has been used on the tests done so far, and there's no more available for all the people who are still having problems but can't afford to have their water tested. She would also like to see more effort directed at cleaning up Wolf Creek, so that the City's treatment system isn't overwhelmed.

Because of limitations in other test methods and procedures, and because City of Adrian water users continue to experience taste, odor, and other problems into late December long after the harmful algae bloom on Lake Adrian stopped, molecular testing<sup>2</sup> in the form of DNA analysis, using PCR, was used. Samples to be tested for both cyanobacteria and microcystin from each tap were collected at the same time, because often one is present without the other. If cyanobacteria is capable of producing microcystin, there is no way to know if, where, or when the toxin will be released. Testing only for microcystin does not show if cyanobacteria is also present, and testing for only cyanobacteria doesn't show the presence of microcystin.

Pam Taylor of Environmentally Concerned Citizens of South Central Michigan, a group that has been monitoring many of the area's surface waterways for nearly 20 years, and found cyanobacteria and microcystin in Wolf Creek and its tributaries in 2017 and 2018, said, "This needs more investigation. System-wide testing and a local epidemiological study would be helpful. While cyanobacteria at low

levels is naturally found in surface water, especially in the summer, levels are increasing here. It should never be found in treated drinking water because scientists do not know what triggers some cyanobacteria into producing colorless, odorless, cyanotoxins like microcystin at the end of its life cycle. Treated drinking water shouldn't contain Bacteroides. Maybe the City needs to upgrade its testing equipment. Maybe an upgrade to add ozone or ultraviolet treatment is needed if they have to use Lake Adrian as a source, especially if they're going to supply the new ProMedica hospital as well as existing customers. Wolf Creek's water quality is dismal and it needs to be cleaned up. There are no safe drinking water standards and regulations for either cyanobacteria or the toxins it can produce, like microcystin, yet - only guidelines, recommendations, and a couple of reporting requirements. It's up to MDEQ and the City to make sure the distribution system doesn't have low-level cyanobacteria contamination. Public health needs to come first."

Requests have been made of the City to publish its raw and finished water test results for both cyanobacteria and cyanotoxins. Dulbs and Taylor would also like to see the City's completed application to the State for the use of permanganate and the City's contingency plan<sup>3</sup> for cyanobacterial bloom occurrence including their monitoring program and their management and communication plan.

City officials and MDEQ were notified of the preliminary results on December 22, 2018, and the final reports were sent to the City, MDEQ, US EPA Region V, Michigan Department of Health and Human Services on December 28.

<sup>1</sup> *Bacteroides* (Fact Sheet). EMSL Analytical, Inc. <https://www.emsl.com/Page.aspx?ID=434> and *About the BEACH Act*. USEPA, <https://www.epa.gov/beach-tech/about-beach-act>

<sup>2,3</sup> *Cyanobacteria and Cyanotoxins: Information for Drinking Water Systems*. USEPA, September, 2014. [https://www.epa.gov/sites/production/files/2014-08/documents/cyanobacteria\\_factsheet.pdf](https://www.epa.gov/sites/production/files/2014-08/documents/cyanobacteria_factsheet.pdf)

Attachments: Lab Results (2) Helix Biological Laboratory

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