

December 19, 2025
2211171

Mr. Doug LaFave
Deputy City Manager
City of East Grand Rapids
750 Lakeside Dr SE
East Grand Rapids, MI 49506

RE: Reeds Lake Water Tests

Dear Mr. LaFave:

Per your request, we examined the report for the water testing that was done on Reeds Lake on August 28, 2025. We tested the water for Dissolved Metals, Total Sodium and Chloride as well as PFAS compounds.

This request was made due to a concern expressed over potential impact to Reeds Lake from fireworks. Metals are a common concern with fireworks as most of the colors in the fireworks come from various metals. Common metals often used in fireworks are Ba, Cu, Pb, Cd, Al, Sr, Ti, Zr, Mg, and Na. These samples did not include tests for Sr, Zr, & Ti. However, Pb and Cd were not found and trace amounts of (Ba, Cu) were found in the lake. Levels of Sodium and Chloride were also found at what are considered normal levels for a body of water. Al and Mg were both tested but not reported as Al was not found and Mg was found in trace amounts.

Please note, however, that even though some of the metals that were found in the water samples are found in fireworks, we find it difficult to be able to contribute this to the use of fireworks over the lake. Many of these metals are naturally occurring or are found in many other products. Since the metals found are all trace amounts, below the Groundwater / Surface Water Interface Criteria and even well below any drinking water criteria, I don't think that the fireworks are causing an adverse effect on Reeds Lake.

Regarding PFAS, only trace amounts of 5 compounds (PFBS, PFHxA, PFPeS, PFOA, & PFOS) were found in the surface water sample and trace amounts of 4 PFAS compounds (PFBS, PFHxA, PFOA, & PFOS) were found in the lower depth samples.

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In summary, we compared the metals and PFAS results to the EGLE Part 201 Generic Residential criteria, using the Groundwater Surface / Water interface criteria. The results from the testing are all well below any of these criteria.

Sincerely,

Prein&Newhof



Steve Bylsma, Lab Manager

SMB/mvk

cc: Scott Post, PE, Prein&Newhof
Kevin Koster, PE, Prein&Newhof