A²H₂O Quality Water Matters

Brought to you by the City of Ann Arbor

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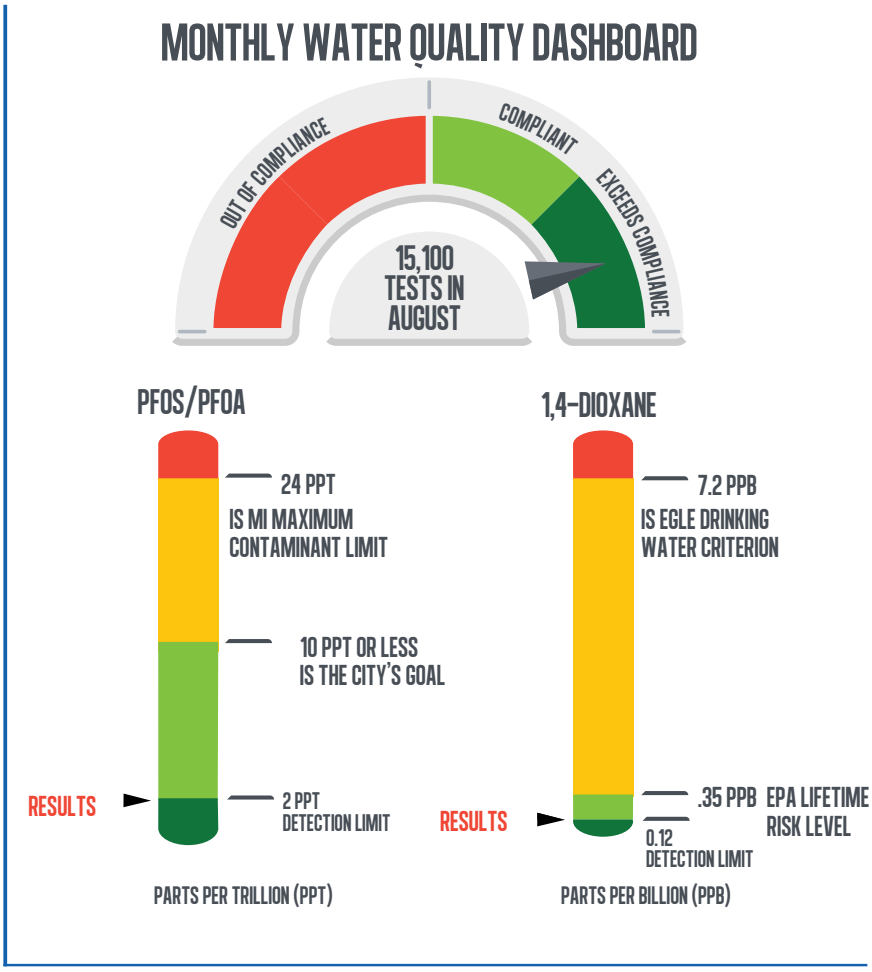
My plan for this month's issue of Quality Water Matters was to talk about our progress on our project to rehabilitate our Water Treatment Plant. We have commenced some of the early planning and will soon be launching our public engagement campaign to provide community members an opportunity to share their thoughts and expectations. I will delay this discussion until next month to address a more pressing issue.



I am sure many of you are aware of the threat to our drinking water supply caused by release of a hexavalent chromium solution from Tribar Industries into the sanitary sewer over the weekend of July 30 and 31. I was notified of this release by EGLE on the evening of Aug. 1. This event began an intensive week of strategizing on how this release would impact the city's water supply. Initially, it was estimated that up to 4,000 pounds of hexavalent chromium might have been released to the sanitary sewer which goes to the Wixom Wastewater Treatment Plant. At the time, the City of Wixom was unsure if their processes would remove the chromium so we assumed the worst case that all 4,000 pounds entered Norton Creek, which is a tributary to the Huron River. Based on river flow estimates at the time and the duration of the release, we estimated that Ann Arbor might see concentrations of chromium at the city's drinking water intake that were 50 times the maximum contaminant level (MCL) for total chromium established by the Safe Drinking Water Act.

City staff quickly initiated an assessment of the existing treatment process to see if it would be able to remove the chromium. Staff have been able to demonstrate through jar testing in the city's environmental lab, that by using a newly acquired chemical, we are able to convert chromium (VI) entering the plant to chromium (III) which is better removed by our treatment process. Utilizing this method we are able to achieve 90 percent or more total chromium removal, which is good news. Our strategy to modify the treatment process and optimize use of well water vs. surface water proved successful, and would have enabled us to continue to provide safe drinking water to all of our customers in the event that the chromium reached our intake in Barton Pond. Thankfully it was not necessary to implement either approach.

Fortunately, as EGLE ramped up its analytical testing in the watershed as well as testing at both the Wixom Wastewater Treatment Plant and testing of filter media on the Tribar property, it was determined that the release into the Huron River was on the order of tens of pounds vs. thousands of pounds. To date, the city has not detected any chromium at its intake in Barton Pond. You can view city testing results, via our project webpage at www.a2gov.org/chromiumspill. EGLE also has been conducting assurance testing in the Huron River and posting results at https://www.michigan.gov/egle/about/organization/water-resources/assessment-michigan-waters/tribar-release-response. The city's drinking water was and

continues to be safe for all uses.

As I reflect back on the last month, it is clear that we avoided a serious threat to the city's drinking water. I am proud of how our dedicated and talented staff responded and quickly became focused on solutions and alternatives to ensure the quality of the city's drinking water was not impacted. However, more needs to be done to protect our watershed from contamination. No drinking water plant can be constructed to address every potential threat that exists, so focusing on keeping contaminants out of the environment is paramount. City staff will continue to work with our partners such as the Huron River Watershed Council, Washtenaw County Health Department and the Washtenaw County Water Resources Commissioner's Office to ensure a united front for the protection of the Huron River. In addition, the city will consider and pursue appropriate legal action to ensure those responsible for polluting this critical water resource are held accountable.

Answers to frequently asked questions are available on our website www.a2gov.org/chromiumspill as well as all of our testing and water quality data. We also have responded to dozens of customer questions and media inquiries during the past month related to this event. My hope is that our customers knew how to reach us with concerns and knew during the event that we were prioritizing open and transparent communications as we worked through this quickly evolving situation. Thank you for your continued support and confidence in our ability to manage these types of unanticipated and unfortunate incidents. The city's drinking water team knows the importance of ensuring safe and reliable drinking water and protecting public health remains our No. 1 priority.

As always, if you have questions about your water quality, please reach out to us at water@a2gov.org.

Sincerely,

Brian Steglitz

Brian Steglitz, PE, Manager of Water Treatment Services, F-1 Licensed Operator

City of Ann Arbor Test Results Show Non-detectable Levels of Chromium in Huron River at Barton Pond

Sample Date	Huron River at Barton Pond	
	Total Chromium (ppb)	Hexavalent Chromium (ppb)
08/30/22	sampled[4]	<10.[1]
08/28/22	sampled[4]	<10.[1]
08/27/22	sampled[4]	<10.[1]
08/26/22	sampled[4]	<10.[1]
08/25/22	<1.0 [2]	<5.0 [3]
08/24/22	sampled[4]	<10.[1]
08/23/22	sampled[4]	<10.[1]
08/23/22	sampled[4]	<10.[1]
08/22/22	sampled[4]	<10.[1]
08/21/22	sampled[4]	<10.[1]
08/20/22	sampled[4]	<10.[1]
08/19/22	sampled[4]	<10.[1]
08/18/22	<1.0 [2]	<10.[1]
08/17/22	<1.0 [2]	<5.0 [3]
08/16/22	<1.0 [2]	<10.[1]
08/15/22	<1.0 [2]	<5.0 [3]
08/14/22	<1.0 [2]	<10.[1]
08/13/22	<1.0 [2]	<10.[1]
08/12/22	<1.0 [2]	<10.[1]
08/11/22	<1.0 [2]	<5.0 [3]
08/10/22	<1.0 [2]	<5.0 [3]
08/09/22	<1.0 [2]	<10.[1]
08/08/22	<1.0 [2]	<10.[1]
08/07/22	<1.0 [2]	<10.[1]
08/06/22	<1.0 [2]	<10.[1]
08/05/22	<1.0 [2]	---
08/04/22	---	<10.[1]
08/02/22	<1.0 [2]	<1.0

What do these numbers mean?

Sample data in the table above represent concentrations of total chromium and hexavalent chromium in the Huron River drinking water. The City's treatment process does not add any chemicals that contain chromium, therefore the drinking water would have no more chromium than is measured at the City's intake.

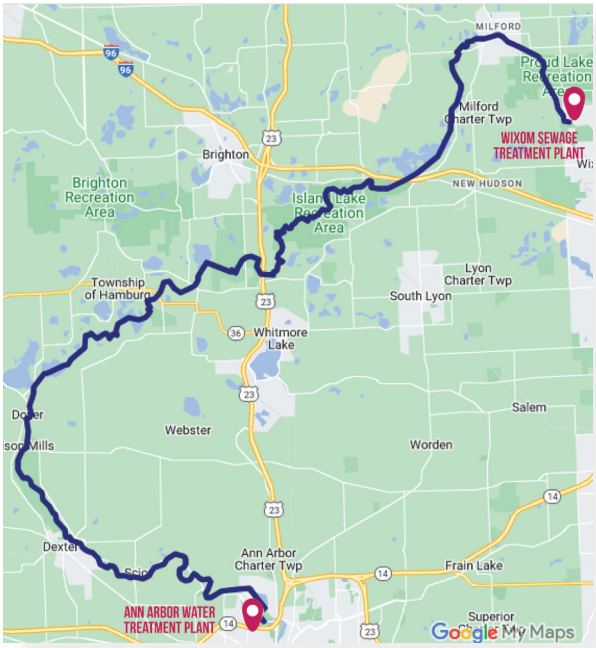
The health-based drinking water standard for total chromium is 100 ppb.

When reviewing the data in the table above you will notice that there are different detection limits for total chromium and hexavalent chromium. The reason for this is that the City sends the total chromium analyses to a contract lab and is measuring the hexavalent chromium with a test kit in order to obtain immediate results. A higher detection limit does not indicate that the concentrations in the water are higher. Total chromium results include hexavalent chromium, so the hexavalent chromium concentrations in the samples can be no greater than the total chromium concentrations. It is reasonable to conclude that for any given sample date where both analyses are non-detect, the hexavalent chromium can be assumed to be less than the detection limit for total chromium. If the City were to have a detection of total chromium above the detection limit, we would then send the sample to our contract lab in order to analyze for hexavalent chromium at a lower detection limit than our test kit can provide.

Abbreviations

ppb = parts per billion, equivalent to micrograms per liter

1. Analyzed by Hach method 8023 adapted from SM 3500 Cr B
2. Analyzed by EPA 200.8 Rev 5.4
3. Analyzed by SM 3500-Cr B-11
4. Sample sent for analysis by subcontract lab, waiting for results



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Sign up for Washtenaw County and City of Ann Arbor notifications.