Pharmaceuticals and Personal Care Products in Drinking Water

In 2008 the Associated Press released a three-piece story on pharmaceuticals and personal care products in drinking water sources. While the Onondaga County Water Authority was not one of the systems covered by the story, the article did stir interest of the Board and Management of OCWA. Accordingly, in 2008 the Authority implemented an annual testing program to learn more about potential pharmaceutical and personal care product contaminants that might be found in the Otisco Lake and Lake Ontario water supplies.

While none of us want to find any contaminants in our drinking water, as zero is the desirable level, it is important to begin the process of gathering occurrence data to allow for researchers to target the most commonly found contaminants. As such the Authority intends to continue to collect data related to pharmaceuticals and personal care products in water and will also continue its process of sharing the data with both the researchers and OCWA's consumers.

The 2008 round of samples involved testing for 34 potential contaminants. All but two out of the thirty-four were found to be non-detectable. From 2009 on, based on the recommendation of researchers studying the occurrence of pharmaceuticals and personal care products, the testing list has been expanded. Presently 91 potential contaminants are tested for. From 2009 to 2018 between 5 and 17 of the contaminants were detected. In 2019 there were 11 potential contaminants found.

To learn more about the test results and related information for 2019, you are encouraged to visit the OCWA web site (www.ocwa.org). Anyone that has questions about results, or any of the other water quality reports posted on the Authority web site, are encouraged to contact OCWA's Water Quality Department at 315-455-7061, extension 3157.

General Information related to Pharmaceuticals and Other Emerging Contaminants

Pharmaceuticals and personal care products, known in the water industry as PPCPs, are a group of compounds consisting of human and veterinary drugs (prescription or over-the-counter) and consumer products, such as fragrances, lotions, sunscreens and housecleaning products. These compounds have been detected in trace amounts in surface water, drinking water and wastewater effluent sampling because water professionals have the technology today to detect more substances, at lower levels, than ever before.

Many PPCP compounds are being found at extremely low levels, typically single digit parts per trillion (ppt). Drinking-water standards are typically set in the parts per-billion range, which is 1,000 times higher. The fact that the substance is detectable in drinking water does not mean the substance is harmful to humans. To date, research throughout the world has not demonstrated an impact on human health from trace amounts of PPCPs found in drinking water.

The water community is committed to protecting the public's health. Water professional are examining the occurrence of PPCPs in drinking-water supplies and the effectiveness of current treatment techniques on removal, and are paying close attention to health-effects research in this area, including research being conducted by the Water Research Foundation.

Additionally, the U.S. Environmental Protection Agency (EPA) also considers per- and polyfluoroalkyl substances (PFA's) to be potentially important environmental contaminants. PFA's are a group of man-made compounds which persist in the environment. Some of these compounds were included in the Unregulated Contaminant Monitoring Rule 3 Sampling back in 2014-2015. Although no regulations have been set, the EPA has released health advisories for these compounds. OCWA continues to monitor for PFA's although it is not required. To learn more about the PFA test results for 2019, visit the OCWA web site (www.ocwa.org).

Safer medication disposal: *To help safeguard water quality, discard your unwanted or expired medications in the trash, rather than dumping them down the sink or toilet. Keep prescriptions in their original container, remove or black out personal information on labels, then hide them in an empty, sealable container before placing in your garbage bag. For additional information on disposal and to find Pharmaceutical drop-off locations visit https://www.citizenscampaign.org. Once there, scroll down to Onondaga County, NY residents and click on the blue location icons for specific details.*