



# ONONDAGA COUNTY WATER AUTHORITY

## **Pharmaceutical and Personal Care Product** **Test Results Summary**

During 2008 the Associated Press released a three-piece story on pharmaceuticals 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 Boards and Management of both OCWA and the Metropolitan Water Board (MWB). Accordingly in 2008 the Authority and the MWB started an annual sampling program to monitor for pharmaceuticals and personal care products. Arrangements were made with an independent laboratory, to test for some common pharmaceuticals and personal care products in the raw and treated waters of both Otisco Lake and Lake Ontario.

The spreadsheets (located on the OCWA web page under the Water Quality tab) indicate that of out of the 112 chemicals tested for in 2010, 11 items tested positive. Of the eleven contaminants that had positive results, 10 were found in Otisco Lake raw water and 6 were found in Otisco Lake treated water. With respect to Lake Ontario water, five positive results were detected. Positive results ranged from 0.25 ng/l (parts per trillion) for a chemical associated with fabric cleaning to 37 ng/l for a chemical used as an antibiotic.

While none of us want to find any contaminants in our drinking water, as zero is the desirable level, it may be helpful to put the sample results in perspective. Based on the 33 ng/l caffeine found in Otisco Lake's raw water, for someone to receive the equivalent dose of one 8 ounce cup of coffee, he or she would have to drink 17.2 million 8 ounces glasses of Otisco Lake raw water.

The samples taken each year provide for an introduction to these emerging contaminants and will serve as a baseline for monitoring going forward into the future. OCWA continues to expand its ongoing water quality program to include testing for pharmaceuticals and other personal care products on an annual basis, with the results being posted on the Authority web site each year.

Anyone that has questions about this report, or any of the other water quality reports posted on the Authority web site are encouraged to contact OCWA's Water Quality Manager, Bob Rusyn, Bob can be reached at 315-673-4304, extension 11.

## **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 health. Water professionals 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.

In addition, the U.S. Environmental Protection Agency (EPA) maintains an active program called the Contaminant Candidate List to identify contaminants in public drinking water that warrant detailed study. While the list does not currently include any PPCPs, EPA may consider these compounds in the future. For information about which compounds were detected in OCWA's water supply, see the 2008 Water Analysis Summary below.

### **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 detailed tips on responsible medication disposal and protecting our water supply visit [www.PainInTheDrain.com](http://www.PainInTheDrain.com) and then see the Rx Disposal section.