Microconstituents in Public Drinking Water

The Environmental Protection Agency (EPA) currently has identified 59 organic compounds that are regulated and tested for in United States (U.S.) drinking water. All U.S. drinking water is regulated by EPA criteria and standards of the Safe Drinking Water Act. The test results on these compounds, as well as on the regulated inorganic compounds and bacteriological tests, are reported by the North Texas Municipal Water District (NTMWD) to water customers in the Consumer Confidence Report, which also appears on the NTMWD website (www.ntmwd.com). The number of compounds regulated and the Maximum Contaminant Level (MCL) allowed are set by the EPA. Additionally, the EPA can add compounds to the list or change the MCL based on further scientific knowledge.

In recent years, the methods to measure organic compounds at concentrations as low as one part per trillion (equivalent to one second in 32,000 years) and for some compounds down to one part per quadrillion have been developed and are performed at a small number of laboratories in the U.S. Therefore, many more compounds such as pharmaceuticals, personal care products and endocrine disruptors can now be measured in streams, lakes, runoff, wastewater, groundwater, food products, and public drinking water that went undetected as recently as ten years ago. Such compounds at low concentrations are called microconstituents. There are literally thousands of microconstituents which remain unregulated, but continue to be of interest to the public, NTMWD, the scientific community, and all water purveyors.

In an effort to provide due diligence and increase public confidence with regard to water quality, NTMWD has been voluntarily and proactively participating with the American Waterworks Association Research Foundation (AWWARF) since 2005 in a study involving the detection of microconstituents in public drinking water. The current AWWARF study, not yet complete, involves agencies nationwide and focuses on the detection of microconstituents. The final results of the study should be available later this year.

With the advancement of scientific detection techniques in recent years, the NTMWD would expect that some microconstituents could now be detected in the NTMWD’s
drinking water as well as the public drinking water in other parts of the U.S. and bottled water. However, detection of a microconstituent does not mean that there are any adverse effects on human health or a health standard needs to be developed. It may take the scientific community many years of research and financial commitment to determine the relationship between detected microconstituents and human health. As noted in the recent Associated Press article, these low level concentrations of microconstituents do not pose a threat to human health based on current scientific understanding.

NTMWD's drinking water remains safe, meeting and exceeding standards required by the Safe Drinking Water Act. As the EPA establishes new standards and regulations for microconstituents or any other compounds, NTMWD is committed to utilizing state-of-the-art technology to ensure the drinking water continues to meet all state and federal standards established for safe public drinking water.