

Memorandum



DATE November 22, 2017

CITY OF DALLAS

TO Honorable Mayor and Members of the City Council

SUBJECT **Supplemental Information on Fluoride in Drinking Water**

This memo is in response to the fluoride study referenced by the Dogs Against Fluoride speakers at the November 14, 2017, City Council meeting, titled "*Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6–12 Years of Age in Mexico.*"

The study, published in the September 2017 issue of *Environmental Health Perspectives*, concludes higher levels of maternal urinary fluoride during pregnancy were associated with lower scores on tests of cognitive function in children at age 4 and ages 6-12. However, the authors also shared that caution should be taken when evaluating the significance of this study – the sample size was small and needs to be reproduced by other researchers on different, larger populations to draw actionable conclusions.

The study followed mothers who ingested fluoride from natural sources or through fluoridated salt and supplements. In Mexico, fluoridated salt is the main way women incorporate salt into their diet, unlike in the U.S., where fluoridated water is the main avenue. The researchers found that, on average, the mothers had 0.9 parts per million (ppm) of fluoride in their urine, and some evidence indicated associations with IQ may have been limited to exposures above 0.8 ppm.

The American Dental Association (ADA) examined the study and concluded the findings are "not applicable" to the United States. The ADA continues to endorse fluoridation of public water as the most effective public health measure to prevent tooth decay.

Scientists do agree that extreme levels of fluoride exposure, i.e. 30 ppm or higher, can pose neurodevelopmental risks. In 2011, the U.S. Department of Health and Human Services and U.S. Environmental Protection Agency (EPA) established 0.7 ppm as the effective level for tooth decay prevention after a thorough review by a panel of scientists.

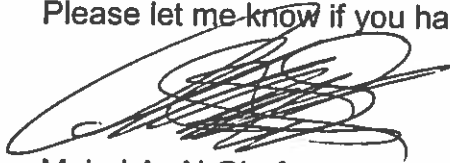
Fluoride appears naturally in Dallas raw water at a level of about 0.35 ppm. Dallas adds fluoride at all three water treatment plants to achieve a finished water concentration of 0.7 ppm. At Dallas' three water treatment plants, raw and tap water fluoride concentrations are measured more than 4,000 times per year (twice daily for each).

The addition of fluoride to Dallas drinking water was authorized by City Council Resolution #65-4383 on August 9, 1965. Dallas began adding fluoride to its drinking water in 1966 after approval by Dallas voters and a lengthy analysis of its benefits in preventing tooth

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decay. The product Dallas uses is certified for use in drinking water by the American Water Works Association, the American National Standards Institute and the National Sanitation Foundation (AWWA, ANSI and NSF).

Please let me know if you have any questions.



Majed A. Al-Ghafry
Assistant City Manager

c: T.C. Broadnax, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Billerae Johnson, City Secretary (Interim)
Daniel F. Solis, Administrative Judge
Kimberly Bizer Tolbert, Chief of Staff to the City Manager
Jo M. (Jody) Puckett, Assistant City Manager (Interim)

Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Nadia Chandler Hardy, Chief of Community Services
Raquel Favela, Chief of Economic Development & Neighborhood Services
Theresa O'Donnell, Chief of Resilience
Directors and Assistant Directors