

Deming, Amy

Subject: FW: PFAS Contamination Summary

From: Grande, Joseph

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Subject: PFAS Contamination Summary

Board Members –

There is some community interest in [PFAS* contamination](#) as it relates to the Environmental Impact Statement for the F-35 Beddown at Truax Field, recent PFAS detections at Well 15, and the former Truax Landfill – for which the City and County are responsible parties (RP) – which may also be a source of PFAS contamination. Tom asked that I provide to you the following PFAS summary, which I previously provided to the mayor and Alders Baldeh (president) and Rummel (past president) earlier this month.

* PFAS = poly- and perfluoroalkyl substances

Here is the text of my summary:

Poly- and perfluoroalkyl substances (PFAS) were detected at two Madison municipal wells in August 2017. The mixture of PFAS found at Well 15 suggests a probable fire-fighting foam origin. An investigation by the National Guard Bureau previously found significant PFAS soil and groundwater contamination at the Truax Field Air National Guard Base. Other potential sources, where PFAS or PFAS-containing products may have been used, stored, or disposed, include Truax Landfill, fire-training facilities around Truax airfield [e.g. burn pits at (1) Darwin Road and (2) Pearson Street], and Fire Station 8.

Initial testing for PFAS in 2015 did not find any of six PFAS at any Madison municipal well; however, more sensitive analytical procedures have been used by the utility since 2017. This greater sensitivity, and low detection limits, resulted in the low-level detections at Wells #15 and #16 where combined PFAS concentrations are 37 ng/L and 3 ng/L, respectively. These concentrations are below the US EPA Lifetime Health Advisory Level of 70 ng/L (nanograms per liter or parts per trillion) for combined concentrations of PFOA & PFOS. A Health Advisory Level is the level below which exposure to a contaminant at that level, over the specified period, is not expected to have any adverse health effects.

Currently, there are no federal drinking water standards for PFAS. It is noteworthy, however, that some states – notably New Jersey and Minnesota, states where PFAS were both manufactured and disposed – are adopting lower safety limits for PFOA & PFOS than those recommended by US EPA, some citing sensitive populations including fetuses, infants and children.

PFAS are persistent and mobile contaminants that can accumulate in animal tissue. Studies suggest that exposures to PFOA and PFOS – two common and better-studied PFAS – can lead to adverse health outcomes affecting the reproductive and immune systems as well as the liver and kidneys.

What are PFAS?

Poly- and perfluoroalkyl substances (PFAS), also commonly called perfluorinated chemicals (PFCs), are a class of 3000+ man-made chemicals with past and current uses in industrial processes and consumer products. PFAS are found in food

packaging, stain and water-repellent fabrics, nonstick products, and fire-fighting foams. These persistent pollutants resist biological and chemical degradation and are not easily removed from water through conventional drinking water treatment or by air stripping.

Drinking water sources contaminated by PFAS are most often located near a PFAS manufacturing facility, PFAS waste disposal site, or military base, airport, or fire-training facility where PFAS-containing fire-fighting foams are currently in use or have been used in the past.

PFOA (used in the manufacture of Teflon) and PFOS (key ingredient in Scotchgard) are the most well-known and well-studied of this group of compounds.

What are the exposure routes?

Contaminated drinking water is only one PFAS exposure route. Others include food that was grown in contaminated soil, packaged with materials containing PFAS, or processed by equipment using PFAS; consumer products that have been commercially treated to make them stain- and water-repellent or nonstick; or occupational exposure through work at a PFAS production facility or one that manufacturers goods with PFAS. PFAS are ubiquitous in our environment and virtually every drawn blood sample shows traces of PFAS.

The Water Utility maintains information on our [website](#) regarding our monitoring for PFAS. Reporting began shortly after these compounds were first found at Well 15 (E Washington Avenue near Lien Road) and Well 16 (Mineral Point Road near Memorial High School) in August 2017.

In addition, I previously reported to the Board on PFAS detections in the semi-annual monitoring reports (#O-2B) in October 2017 and April 2018. I expect to discuss the most current information that I have at the next Water Quality Technical Advisory Committee meeting (Tuesday July 24 at 9 a.m.). There will likely be a PFAS update in the October 2018 monitoring report.

Finally, I have attached an e-mail correspondence to WI Air National Guard environmental compliance staff from earlier this year. I am happy to provide additional detail if there are further questions; however, please remember not to “reply all” to this message.

Sincerely,
Joe

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