

August 16, 2018

Steven B. Elmore
Director, Bureau of Drinking Water and Groundwater
Wisconsin Department of Natural Resources
101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921
Steve.Elmore@wisconsin.gov

SENT BY ELECTRONIC MAIL

RE: Public Petition for Health Advisory Levels for PFAS in Groundwater and Drinking Water with Emphasis on the Tyco/Johnson Controls PFAS site - BRRTS Activity No. 02-38-580694

Dear Director Elmore,

Approximately two-thirds of the people living in Wisconsin rely on groundwater for their drinking water. Adequate supplies of uncontaminated groundwater are crucial to the health of all residents and their families, particularly expectant mothers and newborns.

On behalf of CSWAB, I am writing to request a Health Advisory Level (HAL) for the summed-total concentration of all Per- and Polyfluoroalkyl Substances (PFAS) – including precursors – detected in the State's groundwater and/or having a reasonable probability of entering groundwater such as presence in soils. The persistence and mobility of certain PFAS can lead to large groundwater contaminant plumes extending miles from source areas.

Human health studies have shown that exposure to certain PFAS may affect growth, learning, and behavior of infants and older children, lower a woman's chance of getting pregnant, interfere with the body's natural hormones, increase cholesterol levels, affect the immune system, and increase the risk of cancer. Reference: <https://www.atsdr.cdc.gov/pfas/health-effects.html>.

There are currently no enforceable federal standards for PFAS in groundwater or drinking water. The U.S. EPA has established a Health Advisory Level for PFOA and PFOS in drinking water however it is not applicable to the complex mixture of PFAS found in Wisconsin's groundwater and affected drinking water wells. Moreover, ATSDR's recently-released draft toxicological profile for perfluoroalkyls provides strong evidence that the current federal HAL is not sufficiently protective.

There is growing evidence that babies, even before they are born, are particularly vulnerable to harm. PFAS in a mother's body can move from her blood into her unborn child and from her breastmilk into her breastfed baby. Therefore we ask that this population in particular be a priority consideration in the development of the requested Wisconsin HAL.

The proposed approach to address PFAS as a mixture is not unusual and is similar to how other groups such as dinitrotoluenes, dioxins, PAHs and PCBs have been assessed and regulated. This approach is consistent with environmental field data which consistently finds PFAS as a mixture of widely varying relative ratios and combinations which, in turn, may shift in response to other factors such as aerobic conditions. This approach is also made necessary by the fact that manufacturers and responsible parties uniformly refuse to disclose PFAS product content and composition, arguing that such information is proprietary.

The most notable industrial PFAS site in Wisconsin is the Tyco Fire Technology Center (Johnson Controls) near Marinette. In March 2018, the Department reported that 36 nearby private drinking water wells were found to be contaminated with PFAS. It is important to note here that this initial testing of residential wells was very limited in scope (6 PFAS analytes) when compared to analysis at the facility where 19 PFAS analytes were both tested and detected. Consequently, the true number of affected homes and analytes present in drinking water supplies is uncertain.

Environmental analysis at the Tyco/Johnson Controls site has detected the following 19 PFAS in groundwater and/or soils:

- | | |
|---|---|
| 1. Perfluorobutanesulfonic acid (PFBS) | 11. Perfluorononanoic acid (PFNA) |
| 2. Perfluorohexanesulfonic acid (PFHxS) | 12. Perfluorodecanoic acid (PFDA) |
| 3. Perfluoroheptanesulfonic acid (PFHpS) | 13. Perfluoroundecanoic acid (PFUnA) |
| 4. Perfluorooctanoic sulfonic acid (PFOS) | 14. Perfluorododecanoic acid (PFDoA) |
| 5. Perfluorodecanesulfonic acid (PFDS) | 15. Perfluorotridecanoic acid (PFTriA) |
| 6. Perfluorobutanoic acid (PFBA) | 16. Perfluorotetradecanoic acid (PFTeA) |
| 7. Perfluoropentanoic acid (PFPA) | 17. Perfluorooctane sulfonamide (FOSA) |
| 8. Perfluorohexanoic acid (PFHxA) | 18. 6:2 Fluorotelomer sulfonate (FTS) |
| 9. Perfluoroheptanoic acid (PFHpA) | 19. 8:2 Fluorotelomer sulfonate (FTS) |
| 10. Perfluorooctanoic acid (PFOA) | |

(Source for above: <https://cswab.org/wp-content/uploads/2018/03/Tyco-Ansul-Detects-19-Fluorinated-Compounds-in-Groundwater-2016.pdf>)

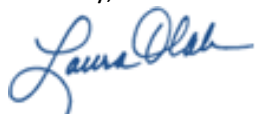
Significant PFAS contamination has also been detected in groundwater at Fort McCoy, General Mitchell 440th, Volk Field, and Truax Field Air National Guard base. It is our understanding that the Department of Defense has not held public meetings in any of these communities to assure that area residents, water utilities, anglers, private well owners, local government and the general public are informed and engaged.

We encourage the Department to write to each of these facilities and encourage public outreach and informational meetings as soon as possible, offering the Department's support and participation in these efforts. We cannot risk failing these communities as occurred at the former Badger Army Ammunition Plant. The public was left in the dark and as a result families were unknowingly exposed to carcinogenic solvents in their drinking water for decades and sadly, there has been a cancer death in each of these families.

An onsite investigation for PFAS at Badger has been proposed however nearby and downgradient community water systems have still not been tested. In fact, the current safety of rural community water supplies throughout Wisconsin is unknown as communities having populations of less than 10,000 are not yet required to test for PFAS and other unregulated drinking water contaminants. A summary of the Department's recommendations and resource needs to address this lack of data is requested.

Thank you in advance for your time and attention. Please do not hesitate to contact me if I may further clarify our requests and purpose.

Sincerely,



Laura Olah
Executive Director

info@cswab.org

608/643-3124