

CITIZENS FOR SAFE WATER AROUND BADGER E12629 Weigand's Bay South - Merrimac, WI 53561 Telephone (608) 643-3124 Email: info@cswab.org Website: www.cswab.org www.facebook.com/cswab.org

February 4, 2019

SENT BY ELECTRONIC MAIL

RE: Madison Utility Board Continued Proactive Approach to PFAS will Benefit City and State

Dear Water Utility Board members:

On behalf of Citizens for Safe Water Around Badger (CSWAB), I would like to thank the City of Madison Water Utility for its proactive response to the detection of low levels of PFAS in certain drinking water wells. By responding promptly to potential public health risks and conducting expanded testing, the Utility has helped assure that community members and agencies have adequate data for well-informed decision making.

The State of Michigan has taken a similar proactive approach. In addition to the very limited testing required by the U.S. EPA, Michigan has begun a statewide initiative to test drinking water from all schools that use well water and community water supplies for PFAS. Michigan is taking this precautionary step of testing these drinking water sources to determine if public health actions are needed.¹

Here in Wisconsin, CSWAB is pleased to report that Department of Natural Resources recently granted our petitions to establish drinking water Health Advisory Levels for a list of 26 PFAS that have been detected in or pose a threat to the State's groundwater – the source of drinking water for more than two-thirds of its residents.

For all these reasons, comprehensive testing of all water supply wells by the City of Madison for the largest suite of PFAS compounds (30 plus inclusion of the TOP Assay) will help inform the list of PFAS compounds that the Wisconsin Division of Health will assess for Health Advisory Levels this year.

A large dataset of results from all Madison area wells <u>will also help inform the decision to address PFAS as a class</u> <u>of chemicals</u> which is, in terms of assessing exposure and health effects, the best way to protect public health.² The reality is that human exposures are invariably a mixture of PFAS compounds and we need to address total exposure to all PFAS as opposed to the past focus on one substance in isolation.

Thank you for your continued proactive approach to PFAS to the benefit of the City and the State of Wisconsin.

Sincerely,

Laura Olah, Executive Director Coordinator, PFAS Community Campaign

Enclosures:

CSWAB Petition for Health Advisory Level HAL Summed Total PFAS August 2018 Wiconsin DNR Letter Granting CSWAB Petition for Summed Total PFAS Jan 2019

¹ Michigan Department of Environmental Quality, PFAS Response: Taking Action, Protective Michigan, *Statewide Testing Initiative*, 2018.

² Department of Health and Human Services, National Institutes of Health, National Institute of Environmental Health Sciences, , Hearing on The Federal Role in the Toxic PFAS Chemical Crisis, Testimony before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Spending Oversight and Emergency Management, Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S., Director, National Institute of Environmental Health Sciences and National Toxicology Program, National Institutes of Health, September 26, 2018.

CSWAB

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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 <u>Steve.Elmore@wisconsin.gov</u>

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)
- 2. Perfluorohexanesulfonic acid (PFHxS)
- 3. Perfluoroheptanesulfonic acid (PFHpS)
- 4. Perfluorooctanoicsulfonic acid (PFOS)
- 5. Perfluorodecanesulfonic acid (PFDS)
- 6. Perfluorobutanoic acid (PFBA)
- 7. Perfluoropentanoic acid (PFPA)
- 8. Perfluorohexanoic acid (PFHxA)
- 9. Perfluoroheptanoic acid (PFHpA)
- 10. Perfluorooctanoic acid (PFOA)

- 11. Perfluorononanoic acid (PFNA)
- 12. Perfluorodecanoic acid (PFDA)
- 13. Perfluoroundecanoic acid (PFUnA)
- 14. Perfluorododecanoic acid (PFDoA)
- 15. Perfluorotridecanoic acid (PFTriA)
- 16. Perfluorotetradecanoic acid (PFTeA)
- 17. Perfluorooctane sulfonamide (FOSA)
- 18. 6:2 Fluorotelomer sulfonate (FTS)
- 19. 8:2 Fluorotelomer sulfonate (FTS)

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

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,

aura Olah

Laura Olah Executive Director

info@cswab.org 608/643-3124 State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 101 S. Webster Street Box 7921 Madison WI 53707-7921

Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



January 17, 2019

Ms. Laura Olah, Executive Director Citizens for Safe Water Around Badger E12629 Weigand's Bay South Merrimac WI 53561

Subject: 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 Laura:

Thank you for your August 16, 2018 letter requesting that the department set 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.

As you know, the department submitted a request to the Department of Health Services (DHS) to review two PFAS compounds (PFOS and PFOA), along with 24 other substances on March 2, 2018. DHS will recommend to the department an enforcement standard for each substance, provided that adequate scientific technical information is available.

The department has reviewed your recent petition, along with other PFAS compounds detected in Wisconsin (see the attached table) and has added all of them to the list maintained by the department under Chapter 160 Wis. Stats., thereby granting your petition. Following the established agreement with DHS, the list, including PFAS compounds identified, will be considered for the next submission to DHS under ch. 160, Wis. Stats.

Your petition requests Health Advisory Level (HAL) be established for the summed-total concentration of PFAS. As you know, the United States Environmental Agency (USEPA) has already set federal HALs for PFOA and PFOS both individually and combined at 70 parts per trillion. Wisconsin uses federal HALs when they are available, so Wisconsin already refers to the federal HALs for PFOA and PFOS when evaluating water sampling results. The department will work with DHS to determine the ability to generate HALs for other PFAS based on occurrence, program needs and available toxicological information concurrently with the ch. 160, Wis. Stats. process discussed above. Until DHS reviews the available scientific information, it is unknown whether or not a summed-total concentration is an appropriate approach.

As you are aware, PFAS in groundwater is a national issue, and as such, the department is continuing to work with the USEPA Region 5 and the Association of State Drinking Water Administrators on this complex issue. Some helpful links are included below:

https://www.epa.gov/pfas https://asdwa.org/pfas



If you have questions regarding this matter please feel free to contact me at (608) 264-9246, or via e-mail at: <u>Steve.Elmore@wisconsin.gov</u>.

Sincerely,

Steven B. Elmore, Director Bureau of Drinking Water and Groundwater Wisconsin Department of Natural Resources

Compound

Perfluorooctanoic acid (PFOA) Perfluoro tridecanoic acid (PFTrDA) Perfluoro tetradecanoic acid (PFTeDA) Perfluoro butanoic acid (PFBA) Perfluoro pentanoic acid (PFPeA) Perfluoro hexanoic acid (PFHxA) Perfluoro heptanoic acid (PFHpA) Perfluoro nonanoic acid (PFNA) Perfluoro decanoic acid (PFDA) Perfluoro undecanoic acid (PFUdA) Perfluoro butanesulfonic acid (PFBS) Perfluoro hexanesulfonic acid (PFHxS) Perfluoro octanesulfonic acid (PFOS) Perfluoro heptanesulfonic acid (PFHpS) Perfluoro octanesulfonamide (PFOSA) Perfluoro-2-methyl-3-oxahexanoic acid (PFPrOPrA) Perfluoro dodecanoic acid (PFDoA) 4:2 Fluorotelomer sulfonic acid (4:2 FTS) 6:2 Fluorotelomer sulfonic acid (6:2 FTS) 8:2 Fluorotelomer sulfonic acid (8:2 FTS) Perfluoro hexadecanoic acid (PFHxDA) Perfluoro octandecanoic acid (PFODA) Perfluoro decanesulfonic acid (PFDS) Perfluoro pentanesulfonic acid (PFPeS) NaDONA F-53B

CAS Number 335-67-1 72629-94-8 376-06-7 375-22-4 2706-90-3 307-24-4 375-85-9 375-95-1 335-76-2 2058-94-8 375-73-5 355-46-4 1763-23-1 375-92-8 754-91-6 13252-13-6 307-55-1 757124-72-4 27619-97-2 39108-34-4 67905-19-5 16517-11-5 335-77-3 2706-91-4 958445-44-8 73606-19-6