



CITIZENS FOR SAFE WATER AROUND BADGER  
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September 25, 2017

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**SENT BY ELECTRONIC MAIL**

RE: Citizens Petition for Wisconsin Health Advisory Levels for PFOA, PFOS and combined

Dear Steve,

Perfluorooctane Sulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) are manmade compounds that are used in a number of products, most notably firefighting foams such as Aqueous Film Forming Foam (AFFF) and stain resistant sprays as well as in the production of nonstick cookware and stain-or water-resistant fabric.<sup>1,2</sup> PFOS and PFOA are extremely persistent in the environment and are resistant to typical environmental degradation processes.<sup>3</sup> The toxicity, mobility and bioaccumulation potential of PFOS and PFOA pose potential adverse effects for the environment and human health.

Animal studies show that exposure to these chemicals can cause adverse effects on the animal's liver, kidney, and immune system along with developmental effects and cancer. Studies conducted on people who have been exposed to these chemicals suggest that exposure at certain levels may adversely affect the developing fetus and child, the thyroid gland and immune systems, and result in decreased fertility and increased cholesterol levels.<sup>4</sup>

In 2016, EPA established health advisory levels for drinking water at 70 parts per trillion (0.07  $\mu\text{g}/\text{l}$ ) in May 2016. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level for drinking water.<sup>5</sup>

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<sup>1</sup> US Environmental Protection Agency (EPA), Fact Sheet: PFOA & PFOS Drinking Water Health Advisories, May 2016, EPA 800-F-16-003. [https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories\\_pfoa\\_pfos\\_updated\\_5.31.16.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf)

<sup>2</sup> Grandjean, P. and Clapp, R. Changing Interpretation of Human Health Risks from Perfluorinated Compounds, Public Health Reports, Vol 129: 48-85, Nov-Dec 2014, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4187289/>

<sup>3</sup> U.S. EPA, Emerging Contaminants Fact Sheet – PFOS and PFOA, March 2017.

<sup>4</sup> U.S. EPA, Groundwater and Drinking Water, Drinking Water Health Advisories for PFOA and PFOS, undated. Online at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

<sup>5</sup> U.S. Environmental Protection Agency, FACT SHEET: PFOA & PFOS Drinking Water Health Advisories, May, 2016. Online at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

However, the EPA's drinking water advisories are not enforceable and the Agency emphasizes that it is "committed to supporting states and public water systems as they determine the appropriate steps to reduce exposure to PFOA and PFOS in drinking water."<sup>6</sup>

As a result, several states have adopted more stringent enforceable standards.

- ◆ Last week, the State of New York announced plans to set maximum contaminant levels for PFOA and PFOS.<sup>7</sup>
- ◆ Minnesota has adopted a Chronic Health Risk Limit of 30 part per trillion (0.03 ug/l) for PFOA and PFOS in drinking water.
- ◆ Last year, Vermont proposed amendments to the state's groundwater protection and hazardous waste management rules that would set a limit of 20 parts per trillion (0.02 ug/l) for PFOA and related chemical PFOS in drinking water.
- ◆ New Jersey set a 40 part per trillion (0.04 ug/l) limit in 2007.

On June 28, 2017 the Wisconsin DNR Remediation & Redevelopment program reported that it has received information on the detections of PFOA and PFOS in wells at the five Wisconsin sites listed below. The number of wells with detections, and the maximum concentration of PFOA and PFOS detected in groundwater at each site are included in the following summary prepared by the WDNR.<sup>8</sup>

Site Name	BRRTS #	Type of Well	PFOS	PFOS	PFOA	PFOA	PFOA + PFOS	PFOA + PFOS
			# of Wells w/ Detections	Max Conc.	# of Wells w/ Detections	Max Conc.	# of Wells w/ Detections	Max Conc.
Ansul Fire Technology Center	03-38-001345	Monitoring	12	12 ug/L	12	190 ug/L	12	202 ug/L
Fort McCoy FTBP #1	02-42-278852	Monitoring	8	31 ug/L	8	0.92 ug/L	8	31.9 ug/L
Fort McCoy FTBP #2	02-42-279956	Direct-push borings	6	69 ug/L	6	3.4 ug/L	6	72.4 ug/L
Fort McCoy FTBP #3	02-42-578125	Monitoring	4	120 ug/L	4	0.72 ug/L	4	121 ug/L
General Mitchell - 440th	Multiple	Monitoring	4	8.61 ug/L	5	10.8 ug/L	5	10.8 ug/L

Pursuant to the Safe Drinking Water Act, once every five years EPA issues a new list of no more than 30 unregulated contaminants to be monitored by public water systems. From 2013 - 2015, all large public water systems and a subset of small systems were required to monitor for approximately 30 unregulated contaminants (including 6 perfluorinated chemicals) under the third cycle of the Unregulated Contaminant Monitoring Rule (UCMR3).

During UCMR3, EPA reports that three samples from Wisconsin's West Bend Water Works (PWS ID#: WI2670120) had PFOA detections above the minimum reporting level (MRL) – concentrations ranged from 0.02155 to 0.04317 ug/l. Two samples from the La Crosse Water Works (PWS ID# WI6320309) had PFOS above the MRL during this cycle – detected levels were 0.053 ug/l and 0.140 ug/l.<sup>9</sup>

<sup>6</sup> U.S. Environmental Protection Agency, Groundwater and Drinking Water, Drinking Water Health Advisories for PFOA and PFOS, undated. Online at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

<sup>7</sup> Times Union Newspaper, *State Water Quality Council to address PFOA, other contaminants: 12-member group will recommend maximum contaminant levels for PFOA, PFOS*, September 22, 2017.

<sup>8</sup> P. Derge, Bureau of Legal Services, WDNR, RE: DNR Records Response, Email message to L. Olah, Citizens for Safe Water Around Badger, 28 June 2017.

<sup>9</sup> U.S. EPA Region 5 - Chicago, Water Quality Branch, K. Harris, RE: USEPA response to UCMR3 PFAS data request (WI), Email message to L. Olah, Citizens for Safe Water Around Badger, September 29, 2017.

## CITIZENS PETITION

Lifetime Health Advisory Levels (HALs) are established by the Wisconsin Department of Health Services for contaminants in groundwater and drinking water. HALs serve as technical guidance to assist regulators with water consumption advisories and groundwater remediation decisions.<sup>10</sup>

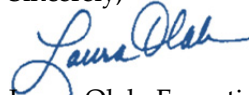
By this letter, we petition the Wisconsin Department of Natural Resources to add the following groundwater contaminants to its list of substances that have been detected and/or have a reasonable probability of entering the groundwater resources of the state, and that the WDNR request that the Wisconsin Department of Health Services review the health effects and consider establishing health advisory levels or interim groundwater standards for the following:

- (1) PFOA (CAS #335-67-1)
- (2) PFOS (CAS #1763-23-1)
- (3) PFOA/PFOS combined

The requested values may be used by the Department in making recommendations to well owners and/or water users on continued use of their water supply and as remediation goals for the protection of groundwater resources of the state. They also provide the public with essential information about the potential health risks associated with exposure to contaminants in drinking water and well water.

Thank you in advance for your consideration and attention to our request.

Sincerely,



Laura Olah, Executive Director

### **Notation:**

On June 10, 2016, the U.S. Department of Defense issued a Memorandum requiring all DoD drinking water systems to test the finished drinking water for PFOS and PFOA at all installations where DoD is the water purveyor, including overseas. To the best of our knowledge, groundwater and drinking water testing for PFOA/PFOS has never been conducted at the former Badger Army Ammunition Plant including at the facility's former fire training area. WDNR recently ran a query on the PFOA/PFOS parameters in the GEMS database and reports that no records were located.<sup>11</sup>

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<sup>10</sup> WI DNR - Drinking Water and Groundwater Quality Standards/Advisory Levels, Narrative for table, accessed online September 25, 2017 at <http://dnr.wi.gov/topic/drinkingwater/documents/haltable.pdf>.

<sup>11</sup> P. Derge, Bureau of Legal Services, WDNR, RE: DNR Records Response, Email message to L. Olah, Citizens for Safe Water Around Badger, 28 June 2017.