



## Shakopee PFAS Summary

Jessie Kolar | District Engineer

Todd Johnson | District Engineer Supervisor

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# Per- and Polyfluoroalkyl Substances (PFAS)



- Family of many synthetic chemicals
- Developed and used since the 1940s
  - resist heat, stains, water, oil, grease
  - “non-stick”
- Production increased rapidly in the 1970s
- Persist in the environment, found everywhere
- Not regulated under the SDWA

# SAMPLING OF SHAKOPEE FOR PFAS

- Shakopee initially sampled for PFAS in 2014 & 2015
  - UCMR3
  - Not every well sampled
  - No PFAS compounds detected.
- Current sampling conducted as part of MDH's Statewide PFAS Sampling
  - MDH goal of sampling all PWSs for PFAS (started in 2021)
  - 'Voluntary', or not required.

# Minnesota PFAS Guidance- How low can we go?

- MDH develops health-based guidance values (HBVs) at concentrations likely to pose little or no risk to human health
- Not enforceable
- Do not consider cost and treatability
- Health Risk Index (HRI): additive risk assessment of co-contaminants with similar health effects
  - HRI > 1 considered an exceedance

	PFOA	PFOS	PFBA	PFBS	PFHxS
2002	7	1			
2006	1	0.6	1		
2007	0.5	0.3	7		
2009	0.3	0.3	7	7	
2013	0.3	0.3	7	7	0.3
2016	0.07	0.07	7	7	0.07
2017	0.035	0.027	7	3/2	0.027
2019	0.035	0.015	7	3/2	0.047

Blue = HRL; Red = HBV; Green = Surrogate

units = µg/L

$$\text{HRI} = \frac{\text{PFOA}_{[\text{conc}]}}{0.035} + \frac{\text{PFOS}_{[\text{conc}]}}{0.015} + \frac{\text{PFBA}_{[\text{conc}]}}{7} + \frac{\text{PFBS}_{[\text{conc}]}}{2} + \frac{\text{PFHxS}_{[\text{conc}]}}{0.047}$$

Well	PFOA	PFOS	PFBA	PFBS	PFHxS	PFHxA	HRI
Well #2	0.0008	0.0016	0.011	0.0015	0	0.0019	0.14
Well #4	0.002	0.0012	0.03	0.0026	0.0009	0.02	0.26
Well #5	0.0027	0.0018	0.036	0.0031	0.001	0.021	0.33
(Wells 6, 7 & 10)	0.0017	0.0028	0.017	0.0017	0	0.0024	0.25
Well #8	0.0012	0.0027	0.017	0.0015	0.002	0.0029	0.27
Well #9	0	0	0.01	0.0009	0	0	0.00
Well #11	0	0	0.005	0	0	0	0.00
Well #12	0	0	0.002	0	0	0	0.00
Well #15	0	0	0.009	0.0012	0	0.0011	0.01
Well #16	0	0	0.011	0.0015	0	0	0.00
Well #17	0	0	0.011	0.0016	0	0	0.00
Well #20	0.0011	0	0.011	0.001	0	0.0014	0.04
Well #21	0.0017	0	0.014	0.0015	0	0.0043	0.07

# WHAT'S NEXT?

- MDH has no plans for immediate follow up sampling at Shakopee.
- EPA preliminary draft MCLs for PFOS & PFOA scheduled for release in fall of this year. (Final MCLs in fall 2023).
- Shakopee will be sampled by MDH for PFAS in December 2024 and June 2025 (UCMR5).

# COMMUNICATIONS

- PFAS results not required to be included in CCR.
- MDH recommends that you include them in your next CCR and can provide resources to help you give context about what these results mean.
- Results will be included in MDH's PFAS Dashboard.
- [Perfluoroalkyl Substances \(PFAS\) - EH: Minnesota Department of Health \(state.mn.us\)](#)

# Thank you

*[jessie.kolar@state.mn.us](mailto:jessie.kolar@state.mn.us)*