

Updates on State and Federal Actions on PFAS

3M PFC Settlement Work Group Meetings

January 18-19, 2022

- Update from MDH on new Health-Based Value (HBV) for PFHxA
- Impact of PFHxA on treatment under the Conceptual Plan
- Update from MDH on EPA toxicology review of PFOS and PFOA

Introduction

- New health-based value (HBV) for PFHxA results in a revised HI calculation
- MDH was already testing for PFHxA and they updated HI values for all tested wells
- The HBV for PFHxA has a very small impact across East Metro wells: only 1 municipal well and 14 private wells received new well advisories (e.g., have revised $HI \geq 1$)
- The Conceptual Plan provides treatment to wells with an $HI \geq 0.5$ (using the HI calculation in the Plan) to be proactive and offer a measure of resilience
- As a result of the treatment threshold, all of the wells with new advisories were already identified to receive treatment under the Conceptual Plan's Capital Allocation

MDH Health Based Values and Health Risk Limits

- **1989 Groundwater Protection Act**

- Requires MDH to protect public health by developing HBVs/HRLs for contaminants in groundwater used as a source of drinking water

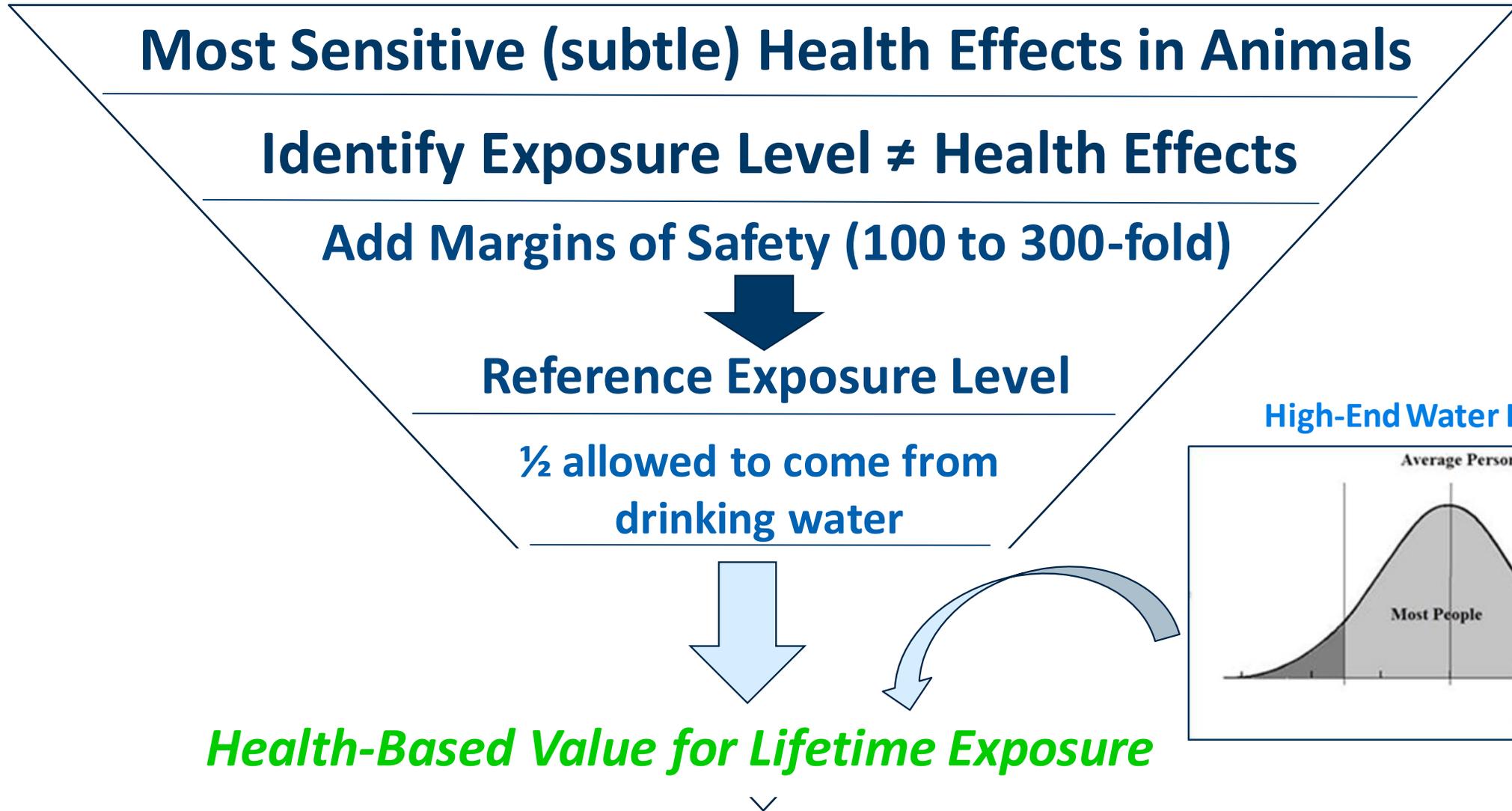
- **Health Based Value (HBV)/Health Risk Limit (HRL)**

- A concentration of a chemical that is likely to pose little or no risk to human health
- Based solely on health effects information (unlike EPA MCLs for public water systems)

- **How values are used**

- Use is not specified in law or rule
- Provides important health information
- Basis for well advisories for private wells
- May be used by community and non-community water supplies to inform actions
- Used by enforcement agencies to assess potential health risks at contaminated sites

Setting MDH Health-Based Values for PFAS in Water



- PFHxA is a breakdown product of stain- and grease-proof coatings on food packaging and household products
- Nominated to the CEC Initiative by the MPCA and MDH-Drinking Water Protection Section in 2020 for review and development of human health-based water guidance
- MPCA cited detections in groundwater in 37% of ambient groundwater samples; MDH DWP noted that there were multiple detections in Minnesota public drinking water systems
- Selected for review in October 2020. The completion of the review was delayed because of the MDH COVID-19 response

PFHxA Guidance

The new Health-Based Values (HBVs) for Pefluorohexanoate shown below:

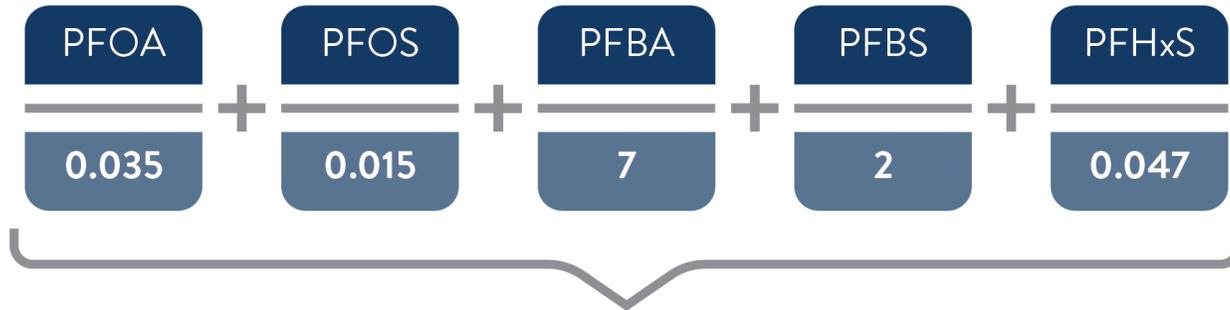
CAS Nos.	Chemical	Duration	2021 HBV Values (µg/L)	Endpoints
92612-52-7 (anion) 307-24-4 (free acid) 21615-47-4 (ammonium salt) 2923-26-4 (sodium salt)	Pefluorohexanoate (PFHxA)	Acute	ND	--
		Short-term	0.2	Developmental, Thyroid [E]
		Subchronic	0.2*	Developmental, Thyroid [E]
		Chronic	0.2*	Developmental, Thyroid [E]
		Cancer	NA	--

* Set to short-term value; NA = Not Applicable; ND = Not derived

HI and treatment under the Conceptual Plan

- All East Metro residents have access to safe drinking water
- HI of 1 is the state's criterion for safe drinking water taking into account the latest science and MDH's guidance
- Regardless of how health guidance values change Co-Trustees are focused on making treatment decisions to ensure safe drinking water:
 - Any well with $HI \geq 1$ will get an advisory from MDH and will be offered treatment under the Conceptual Plan
 - Consent Order will continue to fund treatment for any well with $HI \geq 1$ after Settlement funds are depleted

Treatment Decisions in the Conceptual Plan (from Chapter 8)



HBVs, HRLs, and HI calculation as of August 2021 when the Plan was released

HEALTH INDEX (HI) CALCULATION

HI Calculation Key

HI greater than or equal to 1 Treated: Health Advisory
HI between 0.5 and 1 Treated: Resilience
HI less than 0.5 Not Treated

Justification in the Conceptual Plan

- Existing guidance recommends treatment because PFAS are present in sufficient quantities to potentially have a health effect
- Treatment below 1 but above 0.5 is meant to increase resiliency by deploying treatment now to places that may need treatment in the future; better than being reactive as needs arise
- Wells with HI<0.5 will not receive treatment at this time but will continue to be monitored

How the Plan addresses the revised HI

- The Conceptual Plan capital allocation provides treatment to wells with an HI ≥ 0.5 (using the HI calculation in the Plan) to be proactive and offer a measure of resilience
- Reduces the need to be constantly reacting to new test results or changes to the HI calculation
- The recent addition of an HBV for PFHxA to the HI calculation shows that the resilience decision was a good one

How the Plan addresses the revised HI

HI Calculation Key

HI greater than or equal to 1
Treated: Health Advisory

HI between 0.5 and 1
Treated: Resilience

HI less than 0.5
Not Treated

- 1 municipal well and 14 private wells were previously between 0.5 and 1 under the HI calculation from the Plan and are now above 1 with the revised HI. **Those wells were identified to receive treatment under the Conceptual Plan for resilience.**
- There are no wells that were below 0.5 under the HI from the Plan that are now above 1 with the revised HI. **Water at these wells is safe to drink per MDH guidance and does not warrant treatment. These wells will continue to be monitored.**

Questions and Discussion on PFHxA



EPA Proposes MCL Goals for PFOA and PFOS

- In November of 2021, EPA released a series of documents in support of proposed Maximum Contaminant Level Goals (MCLGs) for PFOA and PFOS
 - Multiple documents totaling nearly 1800 pages
- Released in advance of Science Advisory Board convened to review them in December

EPA Proposes MCL Goals for PFOA and PFOS, cont'd

- Comments were due by December 30th in order to be considered by the SAB
- SAB met on Dec. 16th, and then again in January to deliberate (several meetings)
- Minnesota has a representative on the SAB
- MDH submitted ten pages of comments by the deadline
- EPA plans to develop a proposed PFAS National Primary Drinking Water Regulation for publication in Fall 2022, to be finalized in 2023

Questions and Discussion on PFOA/PFOS

