

# 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

**Most Sensitive (subtle) Health Effects in Animals**

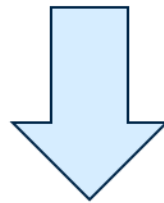
**Identify Exposure Level  $\neq$  Health Effects**

**Add Margins of Safety (100 to 300-fold)**



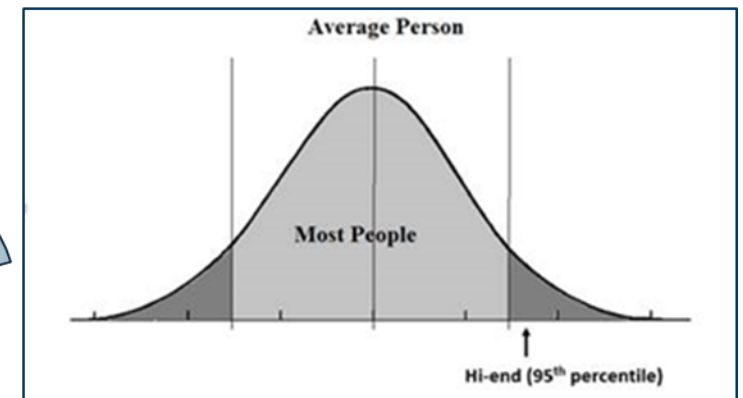
**Reference Exposure Level**

**$\frac{1}{2}$  allowed to come from  
drinking water**



***Health-Based Value for Lifetime Exposure***

**High-End Water Intake Rate**



- 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	--

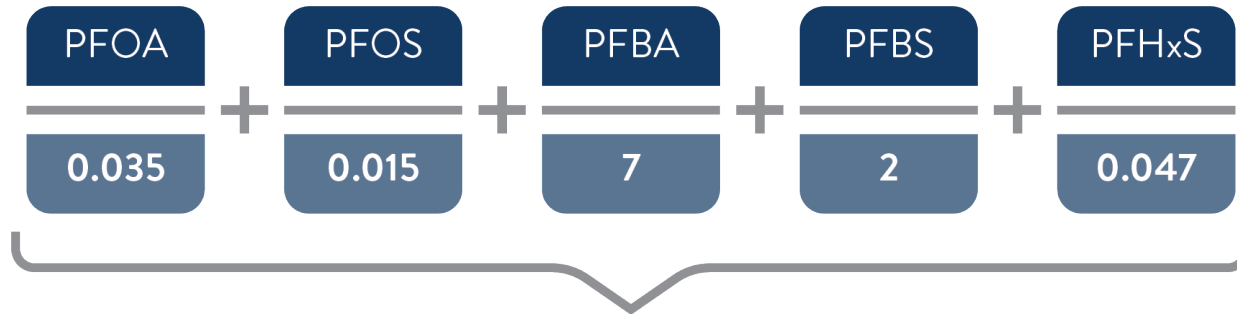
\* Set to short-term value; NA = Not Applicable; ND = Not derived

# 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  $\geq 0.5$  (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 30<sup>th</sup> in order to be considered by the SAB
- SAB met on Dec. 16<sup>th</sup>, 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

