

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PFAS Regulatory Approaches: Before and After Numeric Standards

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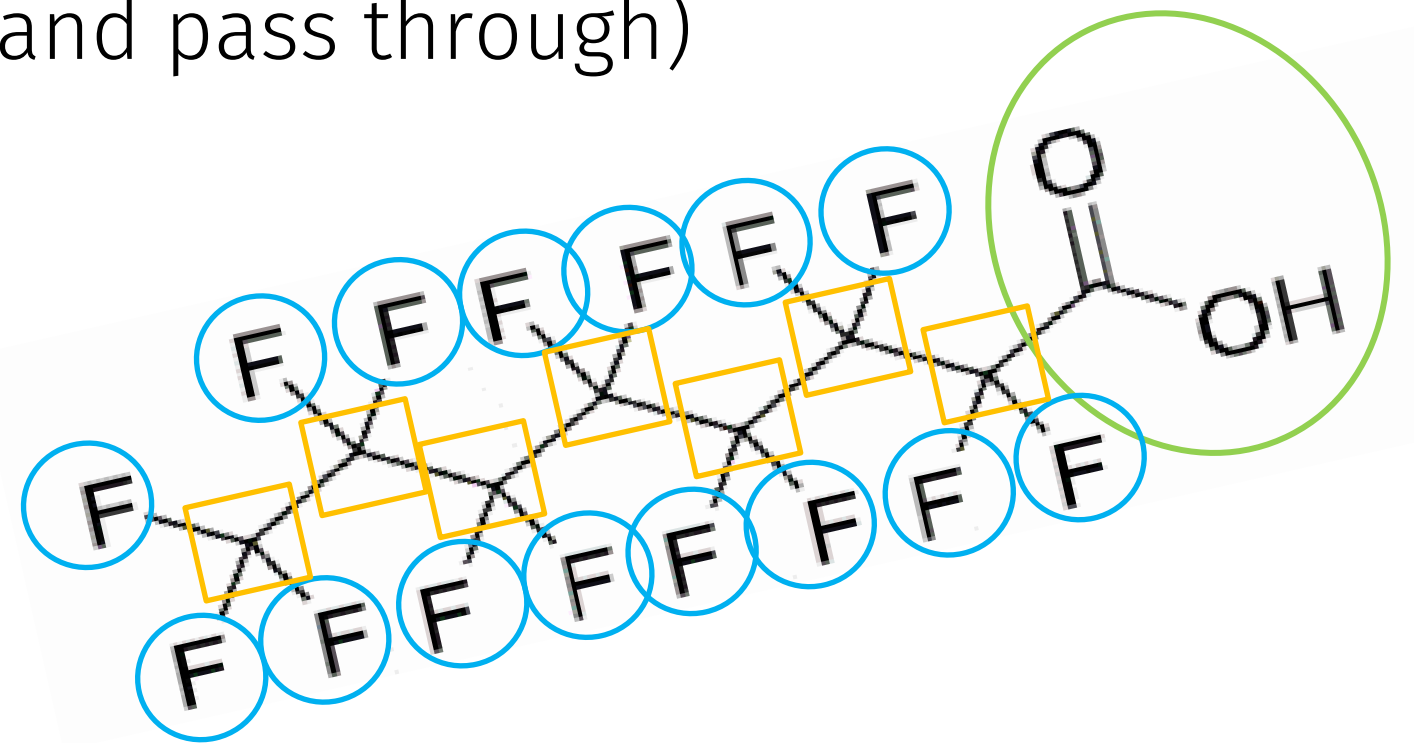
Jason Knutson, PE, Wastewater Section Chief

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AGENDA

- Before numeric standards
 - Use of general permit eligibility criteria/narrative toxics standard
 - Use of BMPs in airport permits
 - Reliance on Michigan's standard for interstate waters
 - Pretreatment prohibitions (interference and pass through)
- After numeric standards
 - Source reduction approach



WI'S APPROACH TO PFAS IN GENERAL PERMITS

- Dewatering discharges near **known contaminated PFAS** sites and/or **airports** are required to screen for PFAS prior to granting general permit coverage.
- Section 4.5(d) of the General Permit contains narrative water quality standard for toxic substances.
 - No toxics at levels of public health significance
 - Permit eligibility criteria only authorizes discharges that comply with standards



WPDES PERMIT

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

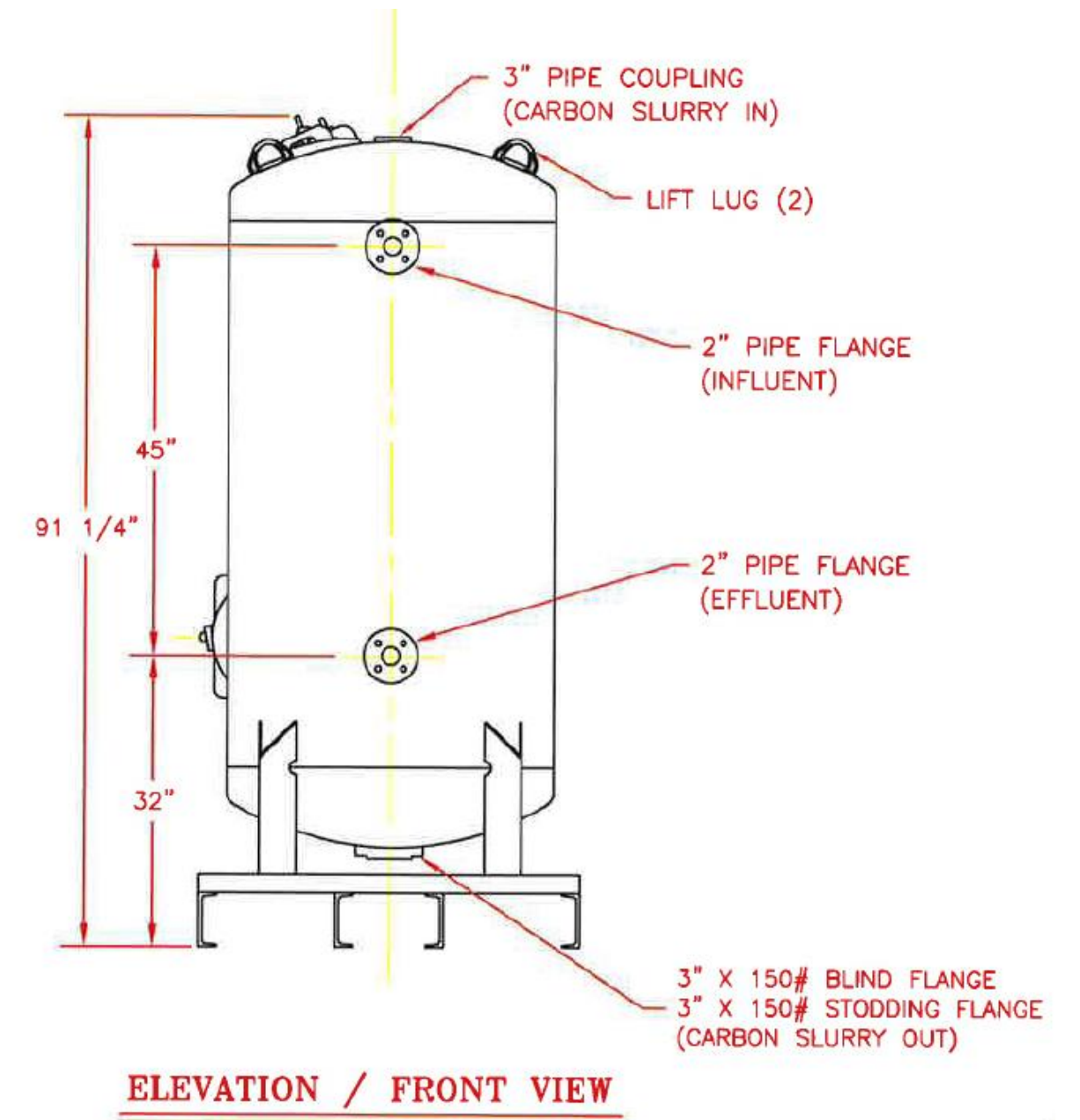
**GENERAL PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of Chapter 283, Wis. Stats., any facility discharging

CONTAMINATED GROUNDWATER FROM REMEDIAL ACTION OPERATIONS

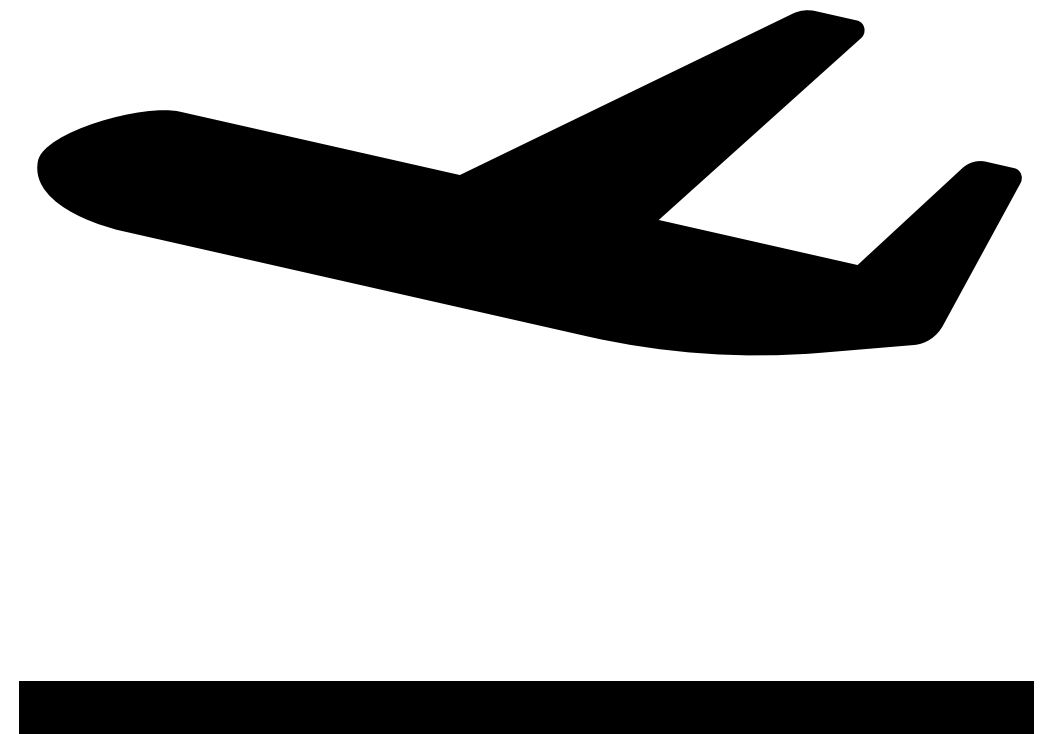
WI'S APPROACH TO PFAS IN GENERAL PERMITS

- If PFAS detected at 'levels of public health significance', treatment required prior to discharge
 - In instances of shared waters with Michigan we used Michigan's numeric WQS for PFOA/PFOS.
 - All other situations: Relied on WI DHS public health recommendations (20 ppt combined PFOA/PFOS)
 - Other compounds of concern: we can calculate secondary value limits in accordance with NR 105
- Coverage letter identifies our expectations with regards to controlling releases of PFAS
- Failure to remove PFAS = violation of GP's eligibility criteria = termination of GP coverage



WI'S APPROACH TO PFAS IN AIRPORT PERMITS

- Individual permits for two largest airports in the state (Milwaukee and Madison)
 - Historically focus has been on regulating aircraft deicing fluid discharges
 - Stormwater/Wastewater permit
- No numeric PFAS standards on the books when permits were being drafted
- Both airports had received 'Responsible Party' notifications from our Remediation & Redevelopment Program



WI'S APPROACH TO PFAS IN AIRPORT PERMITS

- Solution: Put BMPs and monitoring requirements in permit which address the **active discharges** (not remedial in nature), such as:
 - Limiting AFFF releases to the environment
 - Spill response procedures
 - Documenting AFFF storage/handling procedures
 - Inspecting/lining/repairing storm sewers to limit contaminated groundwater infiltration
 - Continue source investigation efforts on site



WI'S APPROACH TO PFAS IN INTERSTATE WATERS



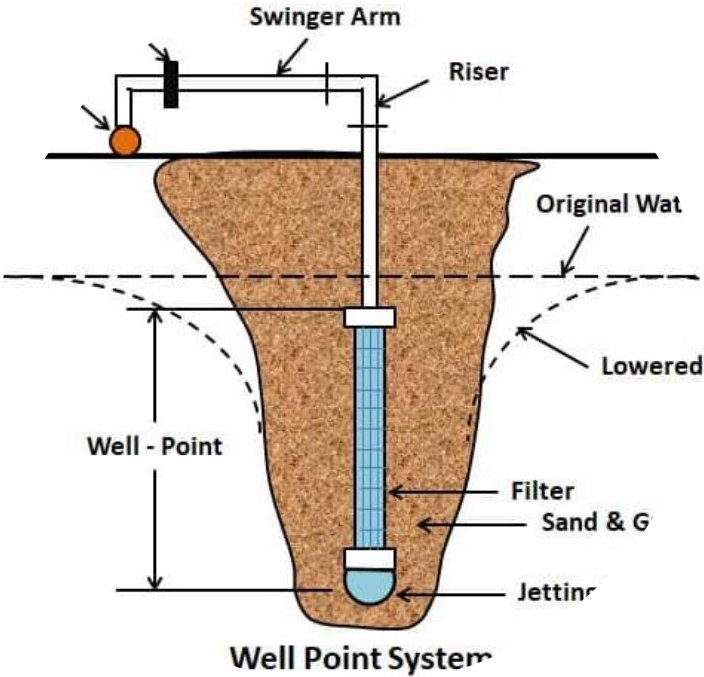
- 40 CFR 122.4(d) – permits shall ensure compliance with standards of all affected states
- Johnson Controls/Tyco's individual permit authorizes a pump-and-treat discharge of arsenic- and PFAS-contaminated groundwater on-site
- Included PFOS limit (11 ppt) based on Michigan's standards
- PFOA limit not needed due to assimilative capacity

WI'S APPROACH TO PFAS FOR INDIRECT DISCHARGES

- 40 CFR 403(1)(a) prohibits pass through or interference
- Pass through: discharge to sewer causes a violation of POTW's permit
 - Includes narrative toxics standard
- Interference: discharge causes disruption of POTW treatment processes, operations, or sludge processes, use, and disposal
 - Foaming at plant
 - Inability to landspread biosolids



OUTCOMES IN THE ABSENCE OF NUMERIC STANDARDS



PFOA & PFOS

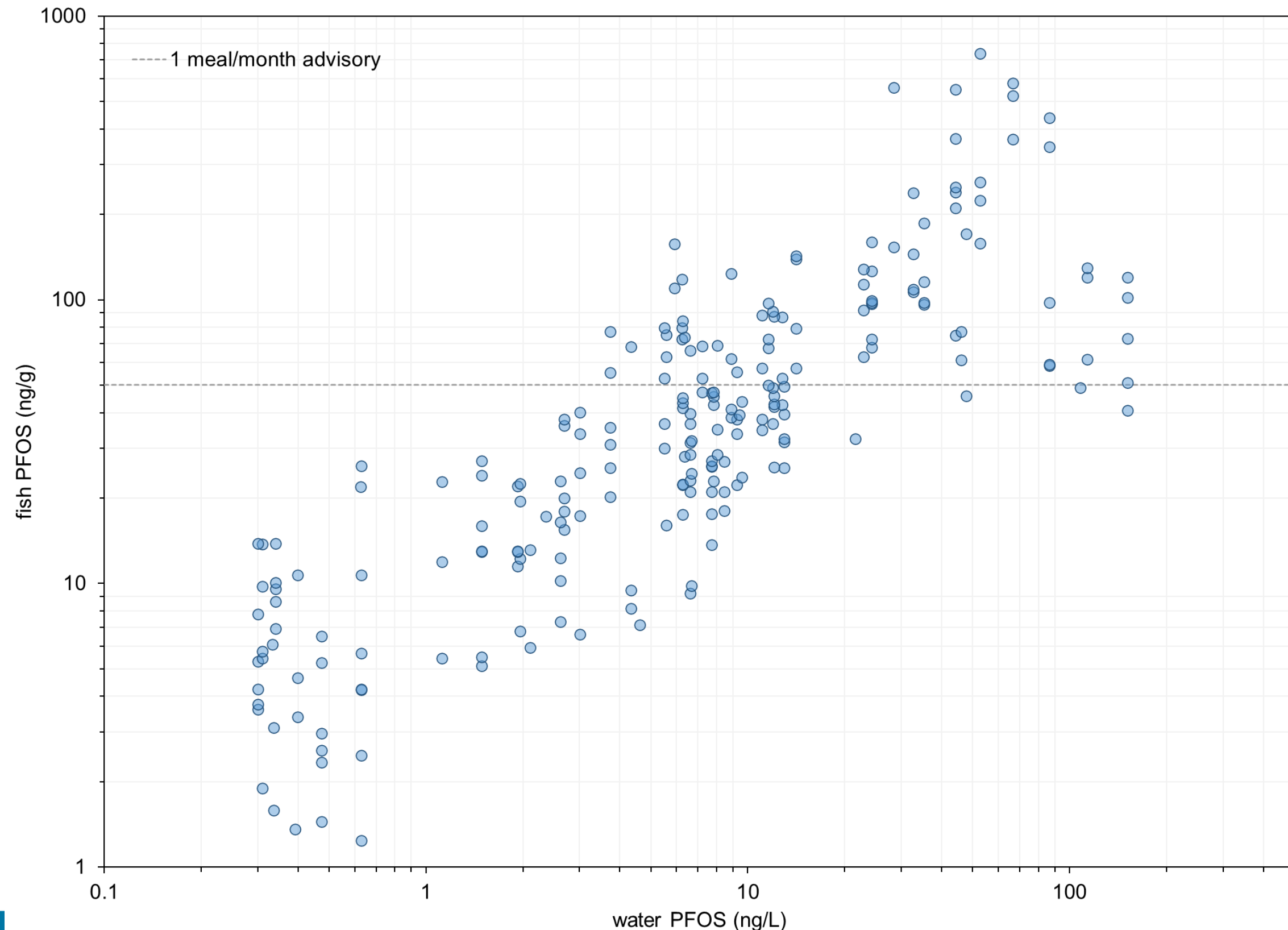
Water Quality Standards Rule



PFOS Water Quality Standard

PFOS = 8 ng/L

Prevents issuance of 1 meal/month fish consumption advisory



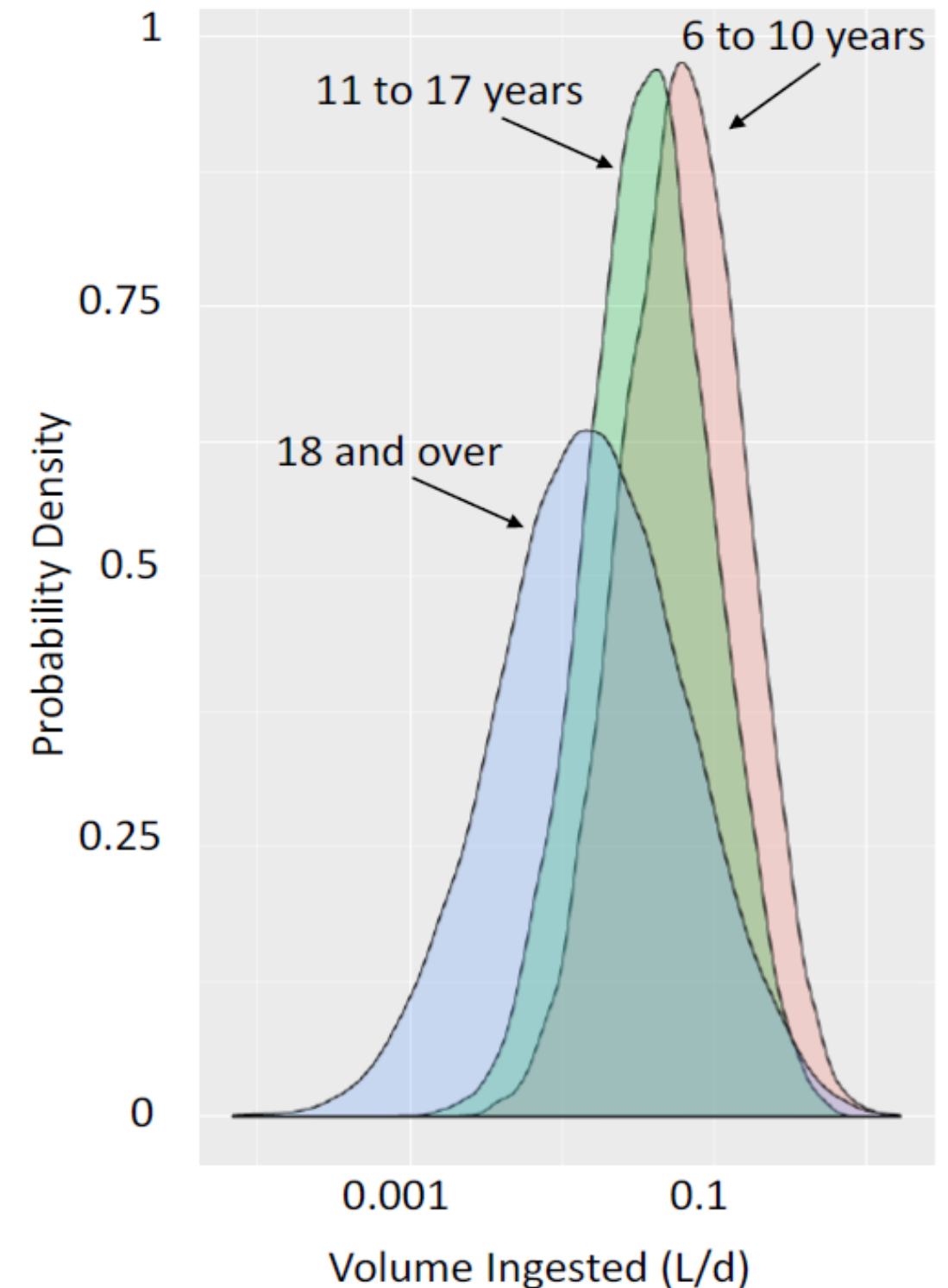
PFOA Water Quality Standard

PFOA = 20 ng/L in drinking water sources

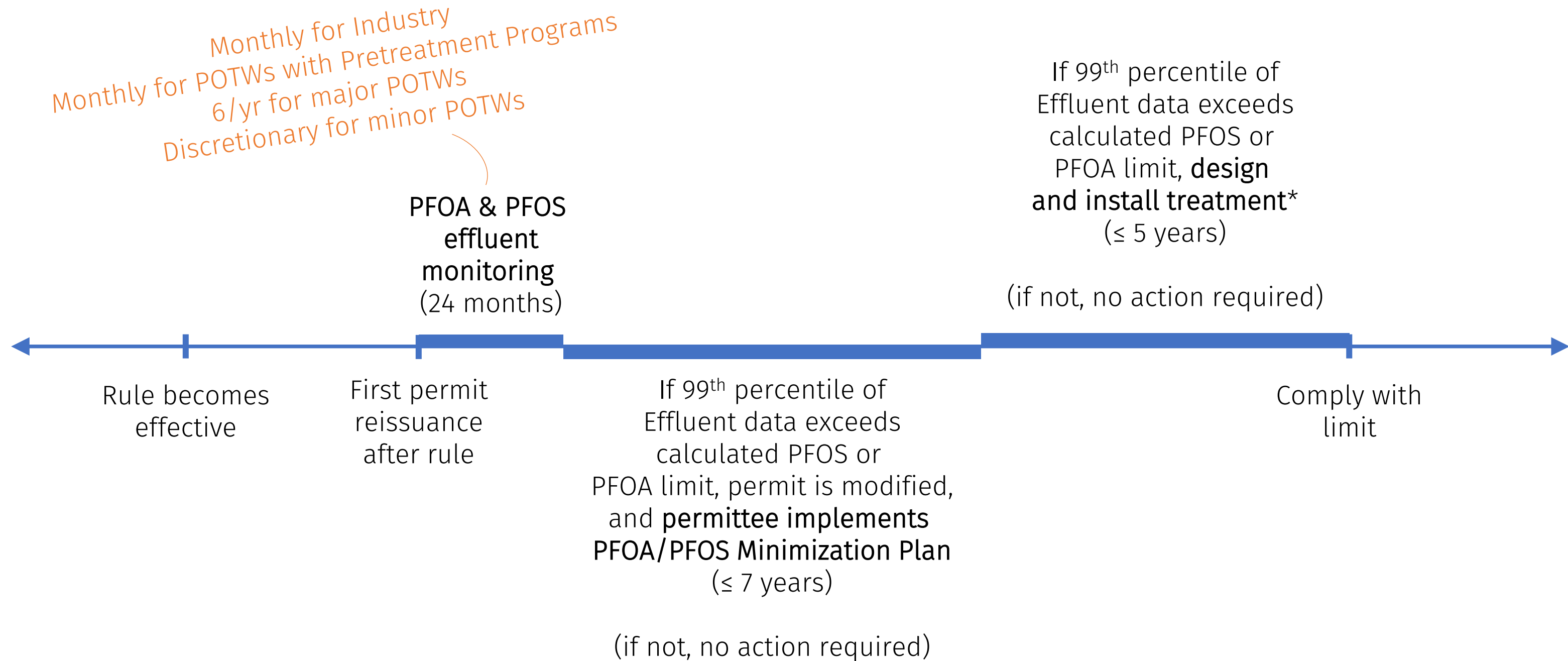
Protects against daily ingestion

95 ng/L in all other waters

Protects against incidental ingestion by children during recreation



Implementation Process



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"WILD WISCONSIN:
OFF THE RECORD"

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