

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PFAS External Advisory Group

FEB. 23, 2021 | DNR.WI.GOV



Agenda

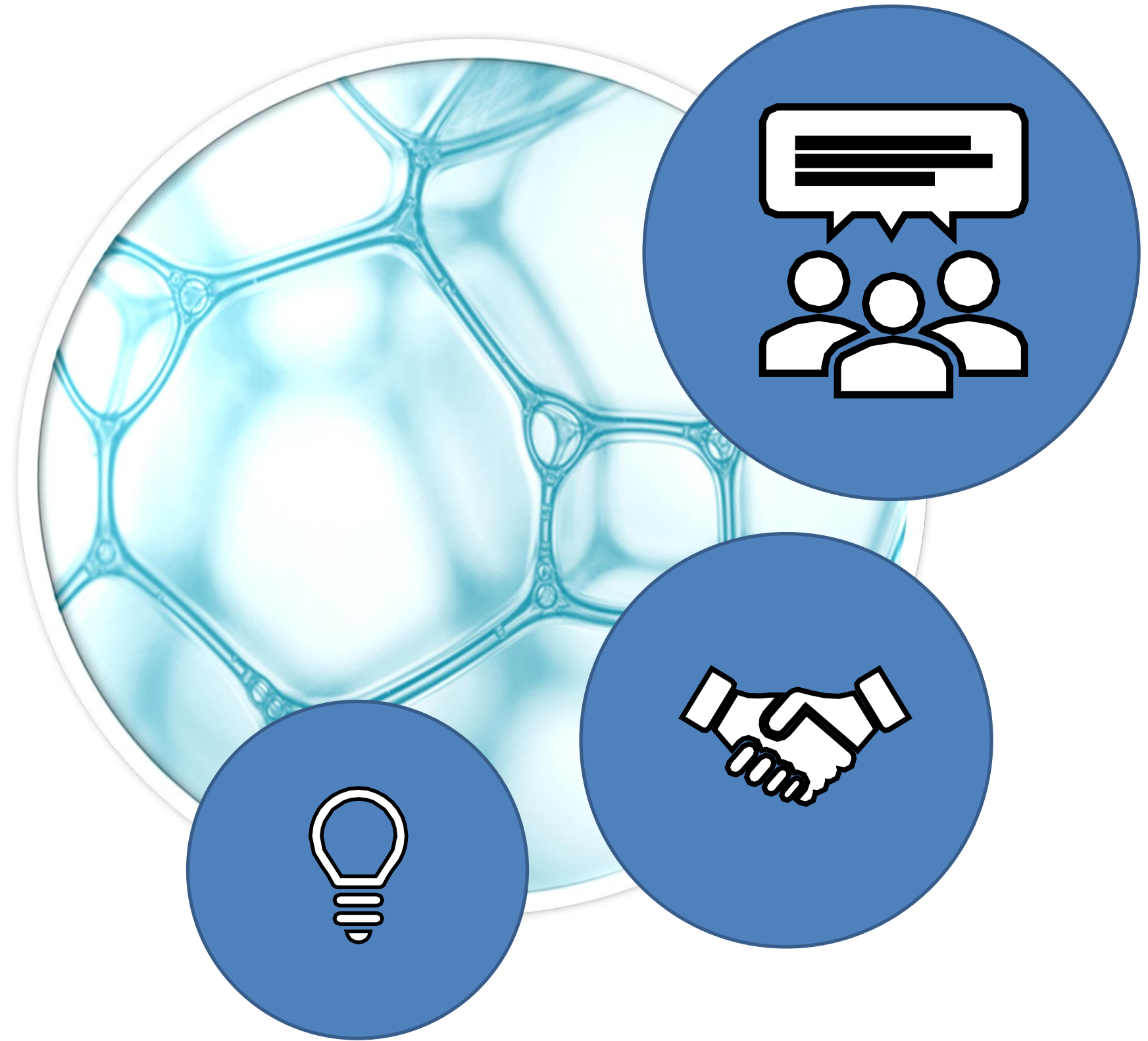
- Welcome and Introductions
- Group Overview and Expectations
- DNR and DHS Guidance Documents
- Modifying DNR's Default PFAS List
- State Budget and Legislature
- Update on Other DNR PFAS Initiatives
- Wrap-up and Next Steps

Welcome



Image credit to ITRC

PFAS External Advisory Group



Hazard Index and PFAS Mixtures

Brita Kilburg-Basnyat, Ph.D.
Toxicologist
Hazard Assessment Section

February 23, 2021
PFAS Policy Advisory Committee Meeting



Risk Assessment Framework

- Likelihood of co-exposure?
- Similar adverse outcome pathway?
- Similar chemical structure?
- Interaction effects?

Cumulative Risk Assessment

- Hazard index
- Relative potency factors
- Response addition or dose-response analysis
- Interactions hazard index
- Point of departure

Previous Hazard Index uses

DHS has used hazard index for groundwater contaminants including:

- Certain classes of pesticides
- Volatile organic compounds

Why PFAS Hazard Index?

- Toxicologically similar
- PFAS are found as mixtures in groundwater
- Same critical target organ or system
- Interaction effects unknown

PFAS Hazard Index Advantages

- Considers health risk of multiple chemicals on non-cancer related health effects
- Reduces overall risk for health effects from similar compounds

Hazard Index PFAS Groupings

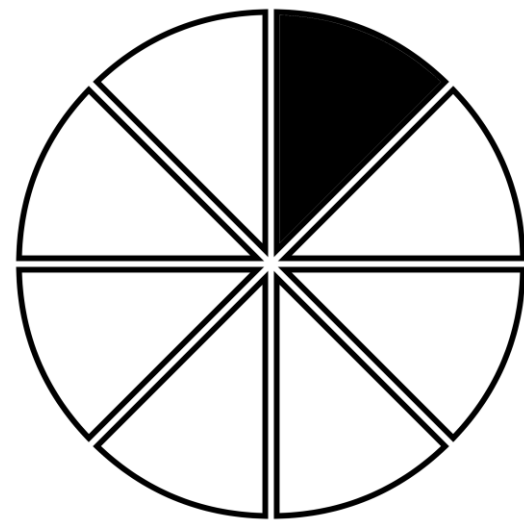
PFAS with DHS Recommended Standards	
FOSA	PFNA
NEtFOSA	PFDA
NEtFOSAA	PFUnA
NEtFOSE	PFBS
PFOA	PFHxS
PFOS	PFDoA
PFTeA	HFPO-DA; GenX*
PFBA	PFODA
PFHxA	DONA

All had reproductive and/or developmental health effects in animal studies

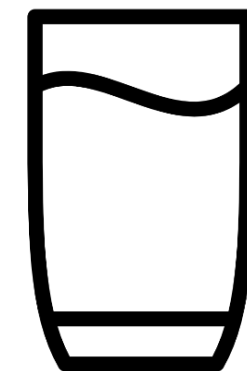
PFAS Hazard Index is Protective

- Health effects from PFAS mixtures are unknown
- Health risks are reduced by eliminating or reducing PFAS exposure

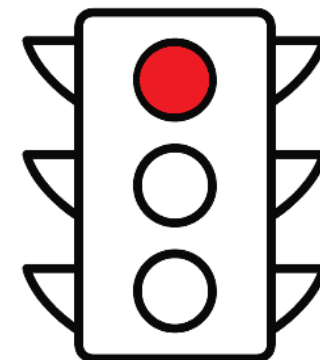
PFAS Hazard Quotient



**Hazard Quotient
(% of ES)**



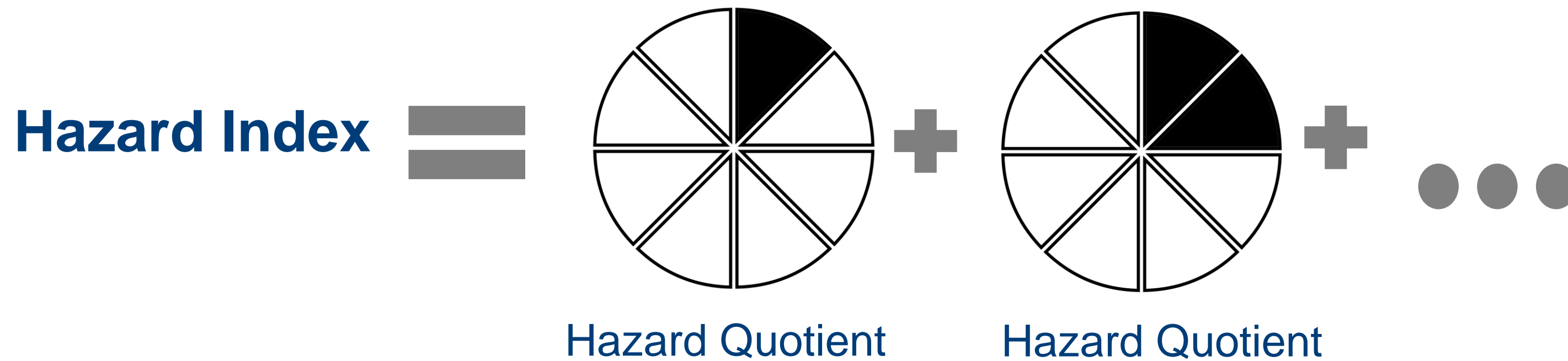
Individual PFAS value



DHS Recommended
Enforcement Standard (ES)

× 100

PFAS Hazard Index



Hazard Index Interpretation

- If hazard index is ≥ 1 , potential concern for adverse health effects.
- DHS recommends action to reduce the potential risk of human health effects.

Thank You!

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Hazard Index: How will DNR use it?

Jenna Soyer, DNR Policy and Program Operations Director in Remediation and Redevelopment



PFAS Hazard Index - How will DNR use it?

- Ensure protectiveness:
 - Assess potential risk when dealing with mixtures
 - Additional mechanism for a DNR-issued or approved drinking water advisory under NR 738 for PFAS-impacted private water supplies
- Evaluate data for private wells affected by PFAS contamination from a “site” or “facility”
- Determine when DNR would provide emergency, temporary water, and when DNR would recommend similar actions of a responsible party
- Next steps

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WI DNR DEFAULT PFAS LIST CHANGES

Tom Trainor, DNR Program Chemist



Current WI DNR Default PFAS List

- 36 PFAS – March 2019
- Default list based on:
 - Detections in WI drinking water, groundwater, and other media
 - Detection information from other states

New PFAS Information

- Upcoming EPA non-drinking water method includes all 36 WI PFAS except:
 - 10:2 FTS
 - PFHxDA
 - PFODA
- These three are not part of the EPA method validation study (single or multi-lab)
- These three present analytical challenges

PFAS Reminders

- March 1, 2021 - DNR to communicate to stakeholders
- Applies to WI default PFAS list
- Does not preclude requesting these or other PFAS not on the WI DNR default PFAS list – case-by-case situation
- Site closure is based on information provided to the DNR at the time of the closure request and is granted for the contaminants assessed
- Reopener criteria in NR 727.13

PFAS Down the Road

- Once EPA releases their non-drinking water method, WI DNR will change the WI DNR default PFAS list to match the 40 PFAS in the EPA method
- Means adding 7 more PFAS to our modified list of 33 PFAS
- Adding NFDHA (food packaging), PFEESA (replacement), PFMPA (manufacturing), PFMBA (manufacturing) - all from EPA 533
- Adding 3:3 FTCA, 5:3 FTCA, 7:3 FTCA (landfill leachate) – all from EPA method



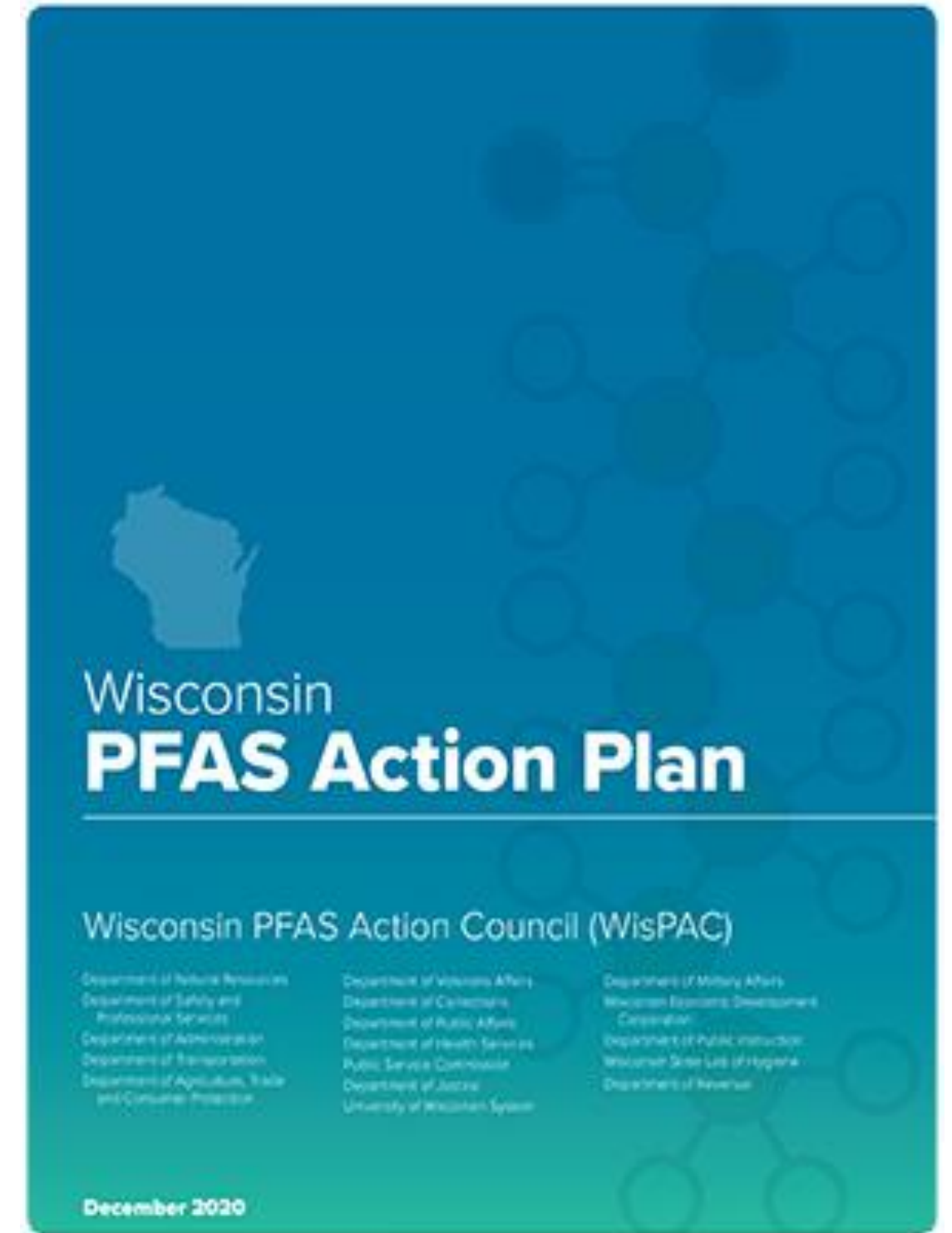
State Budget and Legislative Activity

PFAS State Budget Items

- \$1 million for collection & disposal of fluorinated foam
- \$750,000 to test public water supply wells
- \$55,000 annually to survey 44 large rivers
- \$25,000 annually for wastewater sampling
- \$600,000 annually to test for and mitigate PFAS at state-lead sites
- \$10M annually for municipal grant program - investigate, treat, dispose, sample private wells, emergency water
- 11.0 additional positions
- Statutory language on setting interim PFAS standards



DNR PFAS Initiatives and Updates



Questions



Wrap-up and Next Steps



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OFF THE RECORD"