

PFAS in Marinette, Peshtigo, and Surrounding Communities

Listening Session 15

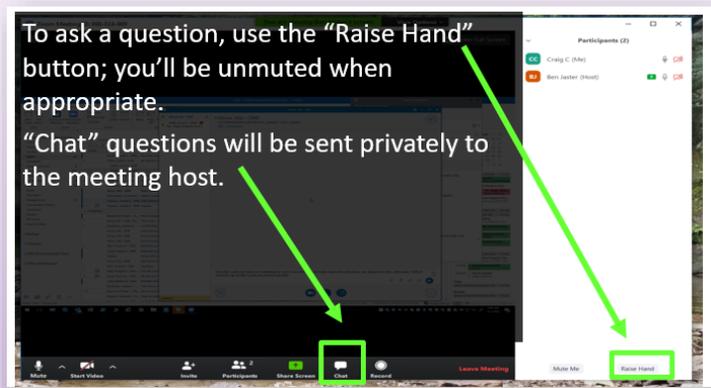


1

What to Expect during this Listening Session

Zoom Meeting Logistics

- All attendees are automatically muted when they join the call
- Joining by *web*:
 - **During the presentation** – use **'chat'** feature to type questions
 - **After presentation** – use the **'chat'** feature *or* **'raise hand'** feature to request to be unmuted to ask a call
- Joining by *phone*:
 - *6 mute/unmute
 - *9 raise hand



2

Team Members

DNR - Remediation and Redevelopment

- Bridget Kelly, Emerging Contaminants
- Christine Haag, Director
- Alyssa Sellwood, Project Manager
- Jodie Peotter, Brownfields, Outreach and Policy Section Chief
- Trevor Nobile, Field Operations Director
- Jenna Soyer, Program and Policy Operations Director

DNR - Drinking Water And Groundwater

- Kyle Burton, Field Operations Director

DNR - Water Quality

- Heidi Schmitt-Marquez, NER Supervisor
- Alexis Peter, Wastewater Specialist
- Laura Gerold, Wastewater Engineer
- Adrian Stocks, Director

Department of Health Services

- Brita Kilburg-Basnyat, Toxicologist
- Amanda Koch, Health Educator

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

3

Staying Connected

- 15th in series of sessions
 - [Previous meeting recordings available](#)
- Website and FAQs
 - [DNR homepage](#) → search 'PFAS Marinette'
 - [Sign-up for email updates](#) →

SUBSCRIBE to Marinette and Peshtigo area PFAS contamination updates.

Other options for contacting DNR

- [Call \(888-626-3244\)](tel:888-626-3244) or
- [Email DNRJCIPFAS@wisconsin.gov](mailto:DNRJCIPFAS@wisconsin.gov)



WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

4

Agenda

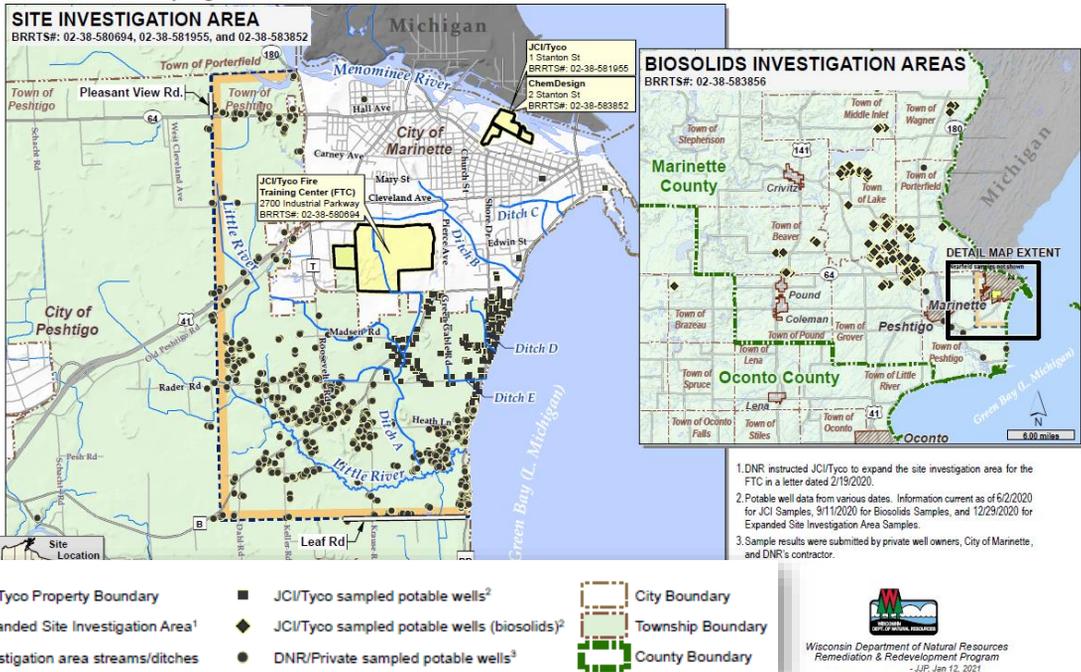
- DNR Private Potable Well Sampling
- Surface Water Foam
- Interim Remedial Actions Updates
- Other updates
- Question + Answer Session



WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

5

Marinette, Peshtigo and Surrounding Areas PFAS Investigations Potable Well Sampling



6



DNR Potable Well Sampling – ESIA

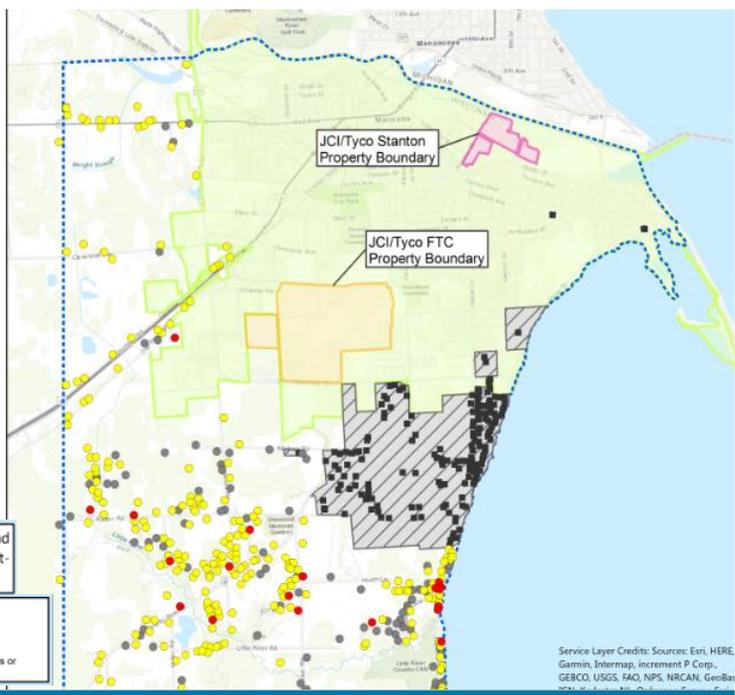


7

DNR Potable Well Sampling Program

Background

- Sampling started fall 2020 - *expanded site investigation area (ESIA)*
- Inform residents about potential PFAS in drinking water wells



8

DNR Well Sampling – Final Summary

Mailer & Sampling Activity Summary			
Total Sent	Opt Out	Opt In	No Response
578	20	415 (72%)	143

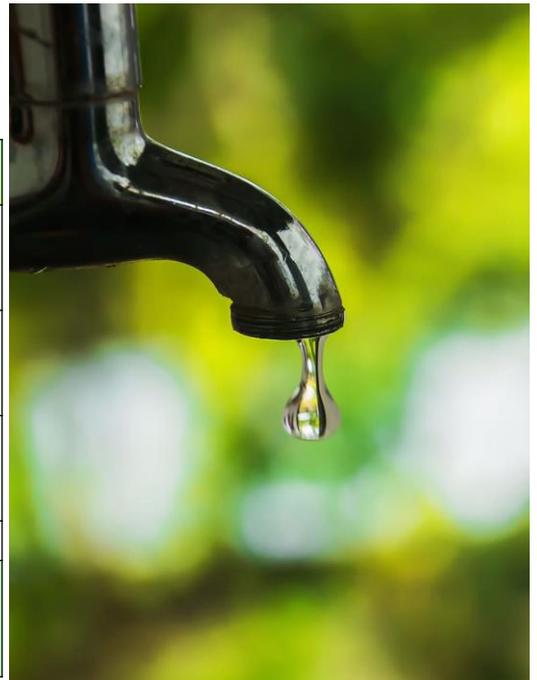


WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

9

DNR Potable Well Sampling – Final Results

Sample Results	Number of Wells
Non-Detect	85
< Recommended Environmental Standard (RES)	298
≥ RES or Hazard Index ≥ 1.0	32
Range of Values ≥ RES	21.9 - 273 ppt



WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

10

Alternative Water Supply

- DNR is supplying water for 1-yr for wells meeting or exceeding DHS recommended standards (or HI)



WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

11



Surface Water Foam



12

Surface Water Foam Monitor & Capture



Ditch B: 4 Gallons
May 13, 2021



Ditch B: 3 Gallons
May 21, 2021



Ditch B: 2 Gallons
July 7, 2021



Ditch B: 10 Gallons
July 8, 2021

Foam Monitoring Plan (4/15/21)

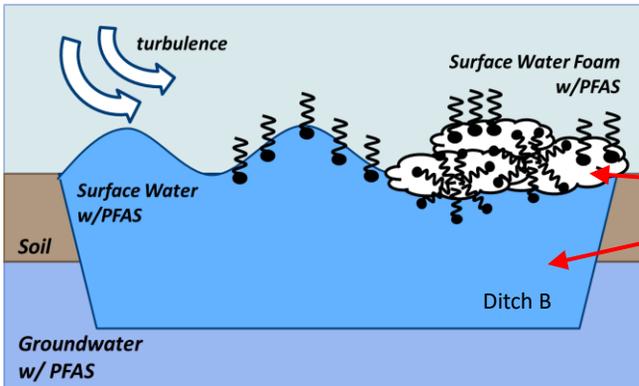
<https://dnr.wi.gov/botw/DownloadBlobFile.do?docSeqNo=194136>

- Ditches A - E
- Booms Deployed (Spring thru Fall)
- Daily Inspections
- Collect and Drum Foam
- **Characterize (PFAS) and Dispose**

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

13

Surface Water Foam PFAS Sampling Results



LOCATION	PFOA (ppt)	PFOS (ppt)
Ditch B/C Foam	23,000	64,000
Ditch B Surface Water (Avg)	2,000	130

Additional information and report → <https://content.govdelivery.com/accounts/WIDNR/bulletins/2e591c8>

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

14



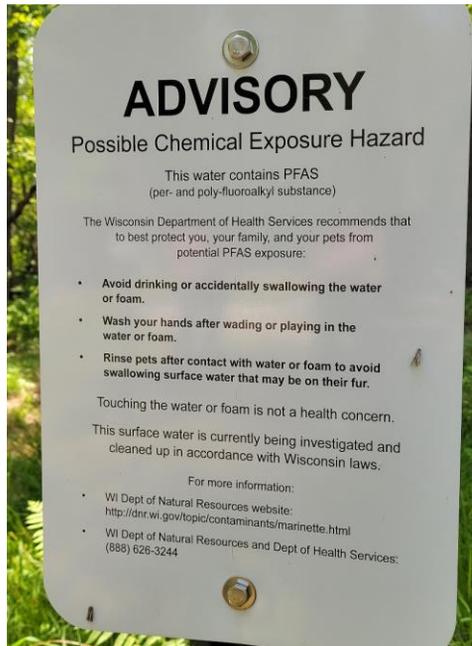
15

PFAS in Foam: Safety Tips

Amanda Koch, MPH | Health Educator
 Brita Kilburg-Basnyat, Ph.D. | Toxicologist
 Bureau of Environmental and Occupational Health
 Wisconsin Division of Public Health
 JCI-Tyco Listening Session
 July 21, 2021



16



Wisconsin Department of Natural Resources

PFAS Detected In Surface Water Foam On Waterways In City Of Marinette And Town Of Peshtigo

Wisconsin Department of Natural Resources sent this bulletin at 06/25/2021 02:54 PM CDT

<https://content.govdelivery.com/accounts/WIDNR/bulletins/2e591c8>



Recommendations

- ✓ Avoid contact with foam on waterways.
- ✓ Avoid accidentally swallowing surface water or foam.
- ➡ *Touching PFAS in foam can become a health concern if the foam or residue left behind on the skin are accidentally swallowed.*



Recommendations

- ✓ If you touch foam, wash your skin as soon as possible and before eating or preparing food.
- ➡ *Foam on surface water can contain other health concerns including bacteria and other harmful biological agents.*



Recommendations

- ✓ Pets that come into contact with foam should be washed.



Wisconsin Department of Health Services

21

21

Thank you!

Brita Kilburg-Basnyat, Ph.D.
Toxicologist

Amanda Koch, MPH
Health Educator

PFAS & Health Line:
1-608-266-1120 ex. 5
DHSEnvHealth@dhs.wisconsin.gov



Wisconsin Department of Health Services

22

22



23

Soil Excavation and Disposal Interim Action

- Remove highly contaminated soils
- Reduce PFAS migration from soil to groundwater
- Soil with PFAS contamination will remain at FTC

Started June 2021 - Estimate Complete Fall 2021



Waste Management
Arlington, OR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

24

Groundwater Extraction & Treatment System (GETS) Interim Action

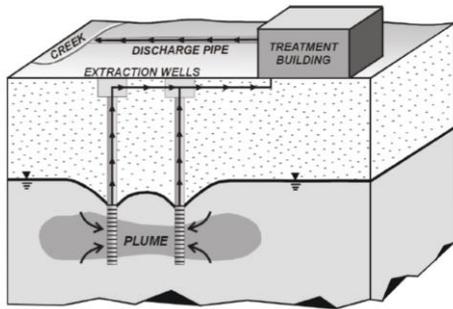


Image from EPA 542-R-01-021b



Groundwater Extraction & Treatment System (GETS) Interim Action

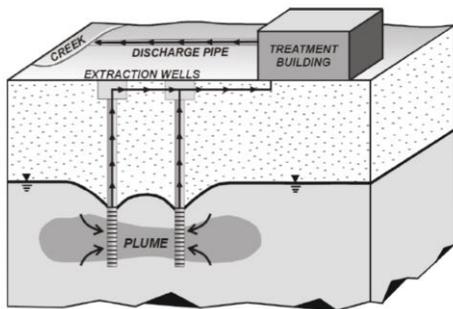


Image from EPA 542-R-01-021b



JCI/Tyco Public Outreach on Interim Actions

- June 29, 2021: **Public Meeting**
- Available: **Factsheets**
 - GETS
 - Soil Remediation
- On-going: **Community Crew**
- Upcoming: **“Office Hours”**

www.tycomarinette.com

View “Latest Updates” or
Use Links Provided on Next Slides

27

<https://tycomarinette.com/wp-content/uploads/2021/06/Public-Meeting-Presentation-FINAL-6-29-2174.pdf>

Links to JCI/Tyco’s
Public Notifications

JCI/Tyco’s Public Presentation: 6/29/21

GETS Conveyance Piping

Community Update – PFAS Remediation

- Groundwater Extraction and Treatment System (GETS)
- Soil Excavation & Removal

Public Meeting
June 29, 2021



28

<https://tycomarinette.com/wp-content/uploads/2021/06/Soil-Remediation-Brochure-2-6-29-2161.pdf>

JCI/Tyco's Updated Factsheets/Brochures

tyco
Soil Remediation
Excavation & Removal

REMIEDIATING SOIL & WATER

Tyco stopped all outdoor testing of foam products in 2017. Tyco conducted extensive soil testing for PFAS across the Fire Technology Center (FTC).

SITE INVESTIGATION FINDINGS:

- Most PFAS from FTC activities has flushed from the soil into the groundwater moving primarily east
- +99% of all samples cleaner than WDNR PFAS direct contact standard for sites used for homes, schools (Non-Industrial)
- All soil samples cleaner than WDNR PFAS direct contact standard for industrial sites like FTC

Phase 1: Remove Stored Soil from Recent Construction

Work began June 11, 2021 and will take approximately 4 months to complete

- Stored soil loaded into rail containers on trucks and covered
- Truck transports rail containers of soil from FTC to rail yard
- Containers with soil loaded onto rail cars where it is taken out of state for disposal at permitted facility



Phase 2: Excavate & Remove Soil with Aggregated PFAS

- Excavation of soil with aggregated PFAS at 5 locations in Outdoor Testing Area (OTA) of the FTC will begin after removal of stored soils
- DNR approved our Soil Remediation Action & Design Report (RADR) on June 17, 2021
- Excavated soil will be loaded in rail containers on trucks that will then transfer the containers onto rail cars where it is taken out of state for disposal at permitted facility



PFAS that may flush from soils on the FTC will be captured and treated by the Groundwater Extraction System (GETS).

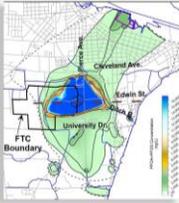
Learn more at tycomarinette.com

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

29

<https://tycomarinette.com/wp-content/uploads/2021/06/GETS-Constructon-Phase-Brochure-6-29-2145.pdf>

tyco
Groundwater Extraction & Treatment System (GETS)
The Construction Phase



SITE INVESTIGATION FINDINGS

Together with scientists and engineering experts, we collected and analyzed over 10,000 data points from air, soil, groundwater and surface water in the Marinette/Peshigo area and found:

- Where - AFFF with PFAS traveled from the FTC primarily east toward Ditch B.
- How - PFAS seeped from the FTC soil into the groundwater that upwells into surface water in Ditch B.

We shared our data & analysis with the WDNR, as well as the public via the project website (www.tycomarinette.com) and community presentations.

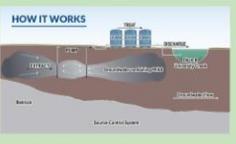
Blue shows where 95% of the PFAS from the FTC is in the groundwater plume. Green shows plume area with dispersed, lower levels of PFAS.

SITE REMEDIATION ACTION

Removing PFAS at the Source

GETS extracts groundwater containing PFAS before it upwells into Ditch B. transports groundwater via underground pipes to the treatment system that removes PFAS from groundwater and delivers water that meets or exceeds DNR standards into Ditch B.

HOW IT WORKS



WHAT GETS WILL ACHIEVE

The GETS is designed to focus on the area currently shown to contain 95% of the PFAS that came from the FTC over the decades. The PFAS is concentrated in groundwater on the FTC and heading toward Ditch B and the expected capture zone of the GETS. That's the design. Real-world operation will tell us how long it will take to achieve objectives and what if any additional measures might be necessary in this area or other areas of the plume.

GETS Design Objectives
(in RADR report submitted to WDNR & conditionally approved May 18, 2021)

- Reduce upwelling of PFAS-impacted water into Ditch B
- Treat the recovered groundwater and remove PFAS to below regulatory levels
- Reduce PFAS-mass flux throughout the groundwater plume

Learn more at tycomarinette.com

→
Side 2

tyco
Groundwater Extraction & Treatment System (GETS)
The Construction Phase

GETTING TO SAFE GROUND & SURFACE WATER



9 wells extract impacted groundwater & underground pipes convey to treatment system on FTC. Safe water meeting or exceeding DNR standards discharged at outfall.

WHAT CONSTRUCTION WILL ENTAIL

IMPACT

- Lions share of construction in rights-of-way and at Tyco FTC
- Minimal interference with traffic
- Construction site safety & housekeeping is a priority
- Updates on construction activity will be posted at tycomarinette.com website and City of Marinette websites

KEY PROJECT ELEMENTS

- Long-Term Monitoring Wells & Ditch Gauges
- Access Road
- Conveyance Pipes
- Extraction Wells
- Treatment Building

Work is underway and GETS is expected to be operating by the end of 2021 and fully operational by the first half of 2022.

Learn more at tycomarinette.com

WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

30



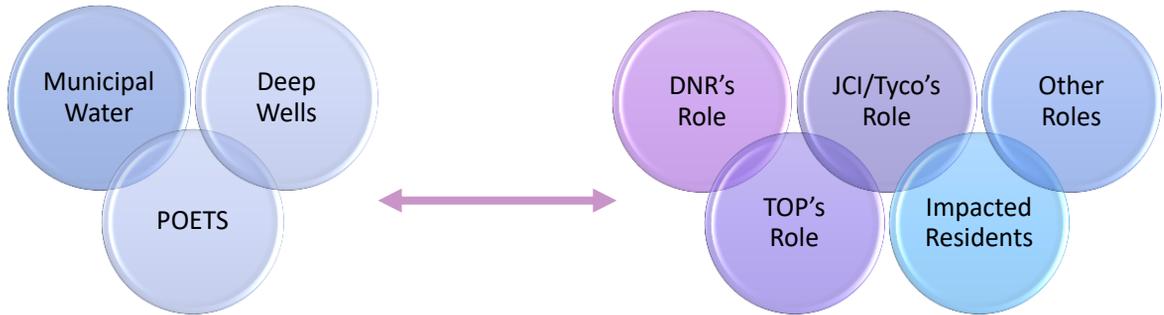
Other Updates



31



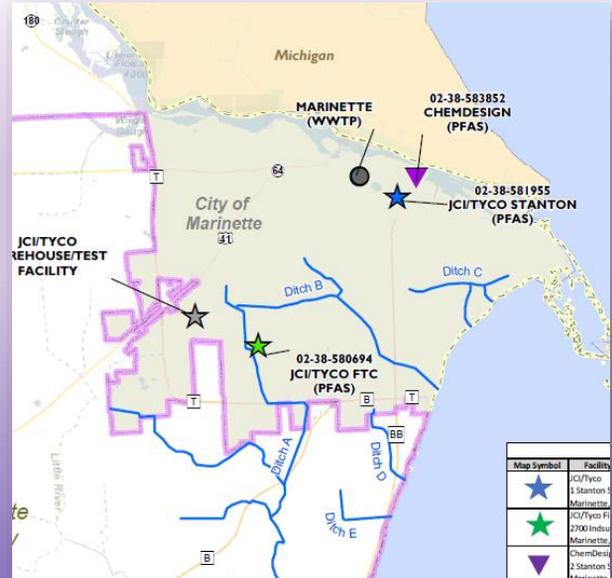
Long Term Water Options



32

Public Comment Opportunity

- ChemDesign Draft Air Permit
- Comments through Aug 4, 2021
- Additional info on DNR's *PFAS Contamination in Marinette – Peshtigo* website
 - **FAQ** – questions about the air permitting process, what's regulated, etc.
 - **Public Notice Document** – how to submit comments, Air Program contact



33

Listening Session Schedule

- Next Meeting in October
- Reach out to us in-between meetings
 - Call us!
 - Email us!
 - Email subscription list
 - Website updates
 - BRRTS updates

Upcoming Meetings

October 20, 2021

January 19, 2022

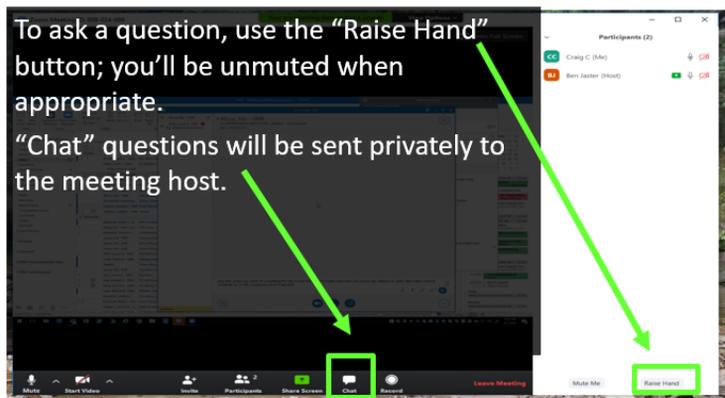
April 20, 2022



34



35



- Use the **'chat'** feature *or* **'raise hand'** feature to request to be unmuted to ask a call
- If you are joining by phone:
 - *9 raise hand
 - *6 unmute/mute

Ground Rules – Listening Session

- 3-mins per person → everyone has the opportunity to voice concerns
- Keep comments constructive
- Attack the problem not the person

36

CONNECT WITH US

Call: (888-626-3244)

Email:
DNRJCIPFAS@wisconsin.gov

