

PFAS Contamination Marinette, Peshtigo, and Surrounding Communities

Listening Session 12 – January 20, 2021

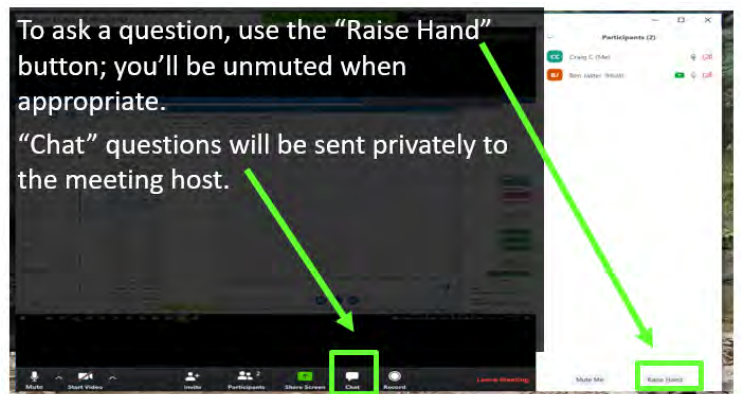


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What to Expect from this Listening Session

'Zoom' Technology

- All attendees are automatically muted when they join the call
- If you are 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
- If you are joining by phone:
 - *9 raise hand
 - *6 unmute/mute



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Team Members

DNR - Remediation and Redevelopment

- Bridget Kelly, Emerging Contaminants
- Christine Haag, Director
- Alyssa Sellwood, Project Manager
- Jodie Peotter, Brownfields Outreach 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

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Staying Connected

- **Today - 12th in series of sessions**
 - Meetings every other month
 - Next meeting in March
- **Other options for contacting DNR**
 - Call (888-626-3244) or
 - email DNRJCIPFAS@wisconsin.gov
- **Also – check out website and FAQs**
<https://dnr.wi.gov/topic/Contaminants/Marinette.html>



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PFAS 101: Where Can I find Additional Information?

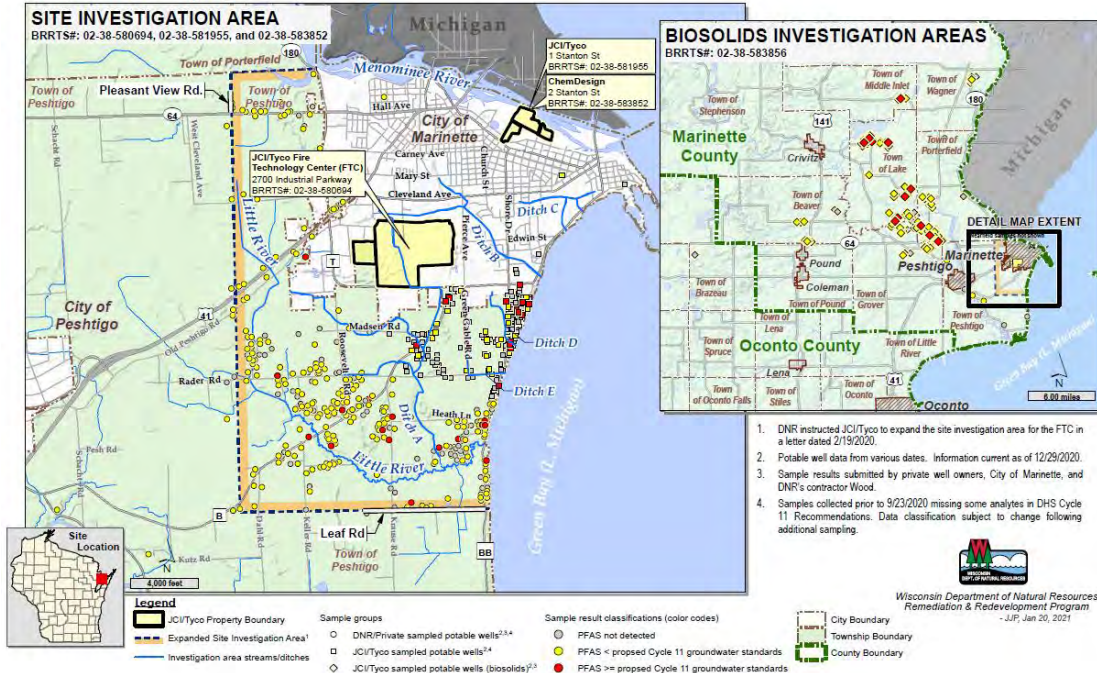
- <https://dnr.wi.gov/topic/Contaminants/Marinette.html>
- Previous Zoom recordings – meetings 7 and 8
- Sign-up for updates →

SUBSCRIBE to Marinette and Peshtigo area PFAS contamination updates.



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Marinette, Peshtigo and Surrounding Areas PFAS Investigations Potable Well Sampling



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Welcome and Agenda

Presentation:

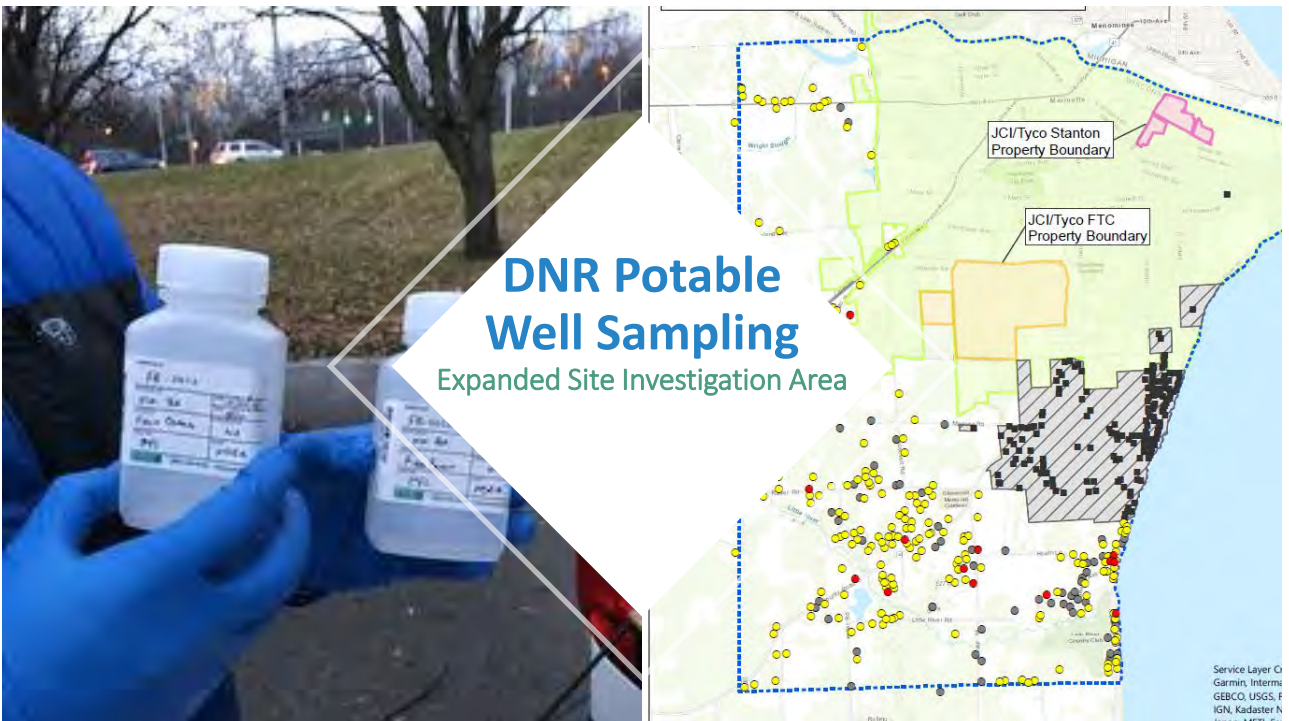
- Updates on DNR Private Potable Well Sampling in Expanded Site Investigation Area
- Site Investigation Updates
- Guest Speaker: JCI/Tyco – Groundwater Extraction and Treatment System
- Guest Speaker: DHS – PFAS and Health Topics
- Upcoming Important Dates

Listening Session:

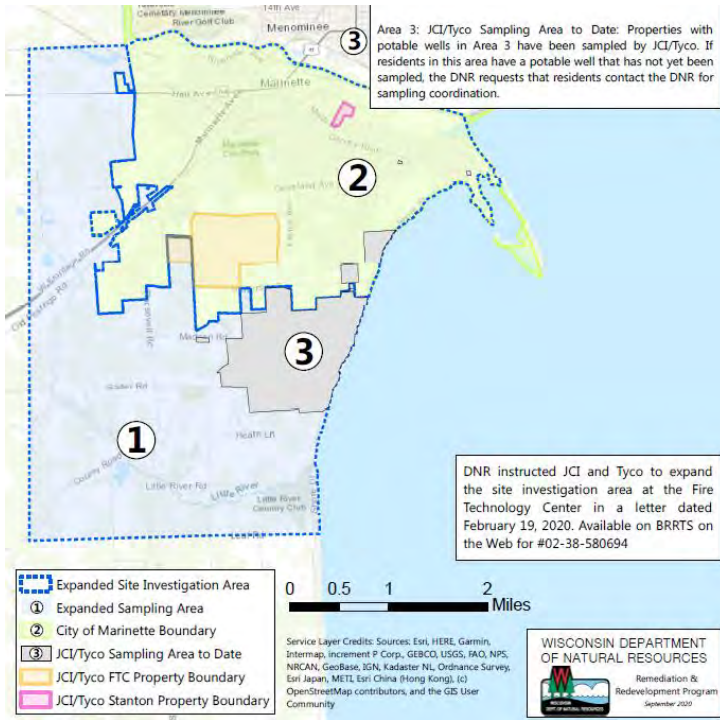
- Question + Answer Session

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Where is DNR Sampling?

- The *Expanded Site Investigation Area (Area 1)* is bound by the bay of Green Bay (east), Leaf Road (south), Pleasant View Road (west), and Marinette municipality boundary (north).
- Well owners outside of this area (blue dotted line) are not included as part of this sampling effort (e.g. wells near biosolids landspreading fields)

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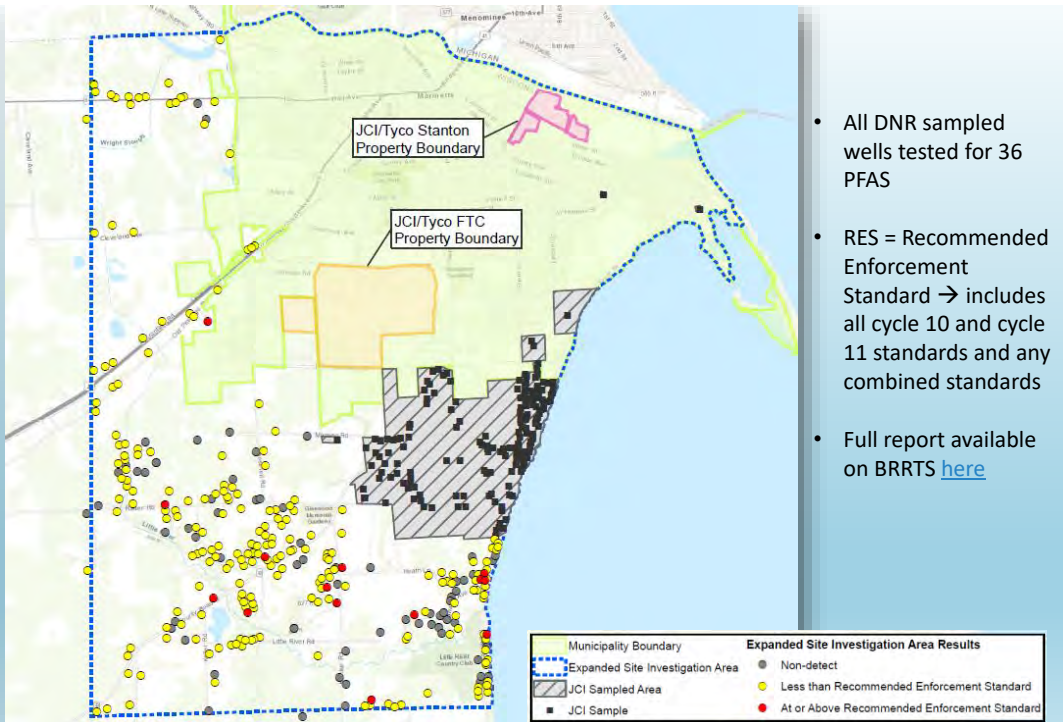
Where are we at so far?

Sample Results	Number of Wells
Non-Detect	77
< Recommended Standard (RES)	216
≥ Recommended Standard (RES)	14
Range of Values ≥ RES	23-110 ppt



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Mapped Sample Results



- All DNR sampled wells tested for 36 PFAS
- RES = Recommended Enforcement Standard → includes all cycle 10 and cycle 11 standards and any combined standards
- Full report available on BRRTS [here](#)

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What's Next for DNR's Well Sampling Efforts

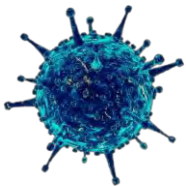
- Data evaluation
- Identify and work with responsible parties to provide replacement water solutions to residents with impacted wells
- Second Sampling Mobilization



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DNR Well Sampling - Where Are We At So Far?

Mailer Details				Well Sampling Activities	
Total Sent	Opt Out	Opt In	Sampling Pending	Wells Scheduled for Sampling	Well Sampling Completed
576	15	353 (62%)	206	307	307



- Sampling schedules adjusted following local and state health recommendations for Covid – no samples collected where access is indoor only
- Some seasonal properties closed prior to sampling events

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DNR Well Sampling - What's Next?

- **Second Sampling Mobilization**
 - Indoor access properties
 - Seasonal properties
 - Landowners who have not yet been sampled
- **Packets Mailed February/March**
 - Sent to properties with an 'improved value' on property tax record (~200+)
- **Sampling Starting In April/May**
 - Return access agreement to DNR



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DNR Well Sampling – Info on Second Round Sampling

- What's included in the mailer packets?
 - Letter, Map, FAQ
 - All posted to web under Sept 30th, 2020 (under 'Actions' tab)
 - <https://dnr.wisconsin.gov/topic/Contaminants/Marinette.html>
- **Subscribe for email updates**

SUBSCRIBE

to Marinette and Peshtigo area PFAS contamination updates.



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FAQ's: Long-Term Water Options

- What happens after 6-month water supply runs out (for DNR sampled wells)?
- What can I do now to address whole-home water quality?
- How do I file a claim against the recent JCI/Tyco settlement?
 - What if I live outside of the settlement area?
- What are JCI/Tyco's requirements for providing a long-term permanent water solution?
- How do sample results affect my property value?



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Environmental Contamination & Your Real Estate

PUB-RR-973

April 2014

Could my property value be affected?

When soil or groundwater contamination is discovered in a rural or urban area, one of the questions that homeowners may raise is whether such information will impact the market value of their property and if so, to what extent.

In any situation, the value of the property is influenced by a number of factors: location, property characteristics and the overall health of the real estate market are just



Website: <https://dnr.wi.gov/files/PDF/pubs/rr/RR973.pdf> **WDNR Website:** search '973'

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Resources: Drinking Water Treatment for PFAS

The screenshot shows the EPA website header with navigation links for Environmental Topics, Laws & Regulations, and About EPA. The article title is "Reducing PFAS in Drinking Water with Treatment Technologies", published August 23, 2018. The text explains that Per- and Polyfluorinated substances (PFAS) are man-made chemicals that persist in the environment and are found in consumer products, firefighting foams, and industrial processes. It notes that traditional drinking water treatment technologies are not able to remove them, so EPA researchers are studying various methods. An image of water being poured into a glass is also visible.

- EPA website: <https://www.epa.gov/science-matters/reducing-pfas-drinking-water-treatment-technologies>
- Contact a water treatment professional – inquire about drinking water treatment systems that remove PFAS

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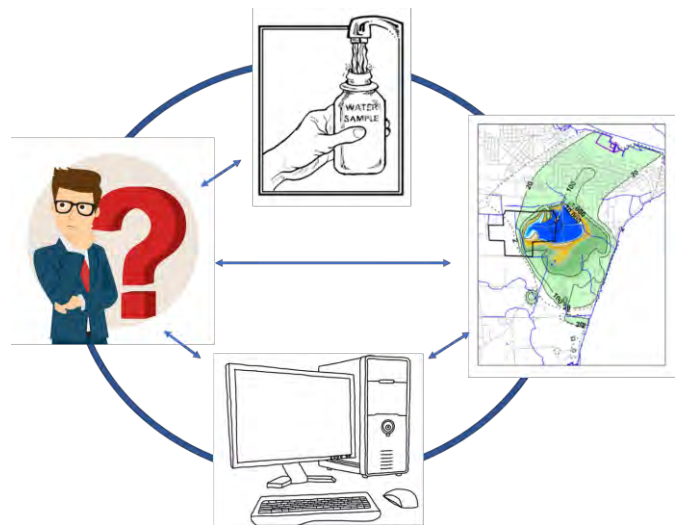
Site Investigation Updates

Alyssa Sellwood
DNR Project Manager

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JCI/Tyco Groundwater Model Report

- Computer Model
 - Real Data + Human Input
 - Feedback Loop / Revise
- Useful Tool
 - Future Predictions
 - Design of Clean-Up
- DNR Reviewing JCI/Tyco's Summary Report



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Ditch B Sampling Updates

Pre-Design Work Plan

- Planning for Source Control
- Sampling: FTC to Green Bay
 - Groundwater
 - Surface Water
- DNR Response to JCI/Tyco's Work Plan



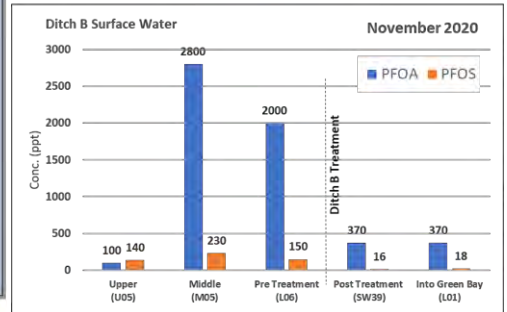
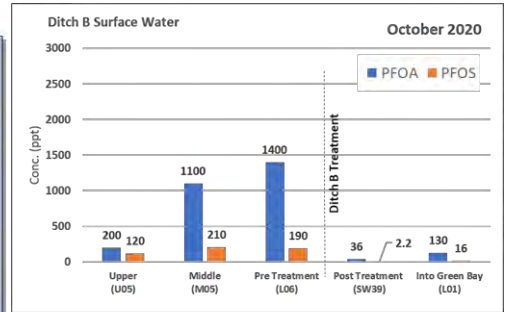
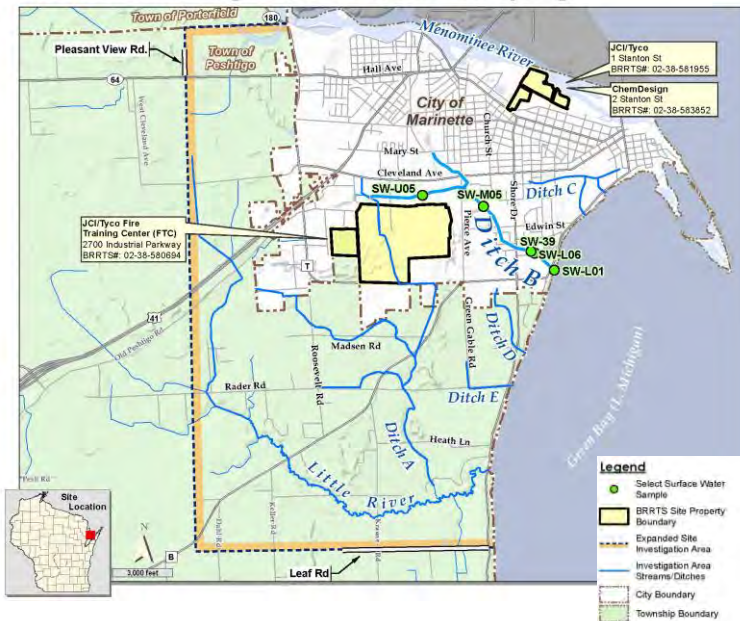
Downstream Treatment System

- Carbon Treatment
- Surface Water Discharge Permit
 - PFOA < 420 ppt
 - PFOS < 11 ppt
- Carbon Vessel Maintenance



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Ditch B Pre-Design Surface Water Sampling



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Foam Sightings

- Foam on waterways
- Foam in basements
- DHS Recommendations for PFAS Exposure – Foam
- DHS Recommendations for PFAS Exposure – Floodwaters
- *PFAS in Marinette and Peshtigo website – Health tab*



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JCI/Tyco Guest Speaker

- JCI/Tyco is designing a system to extract and treat PFAS-impacted groundwater
- DNR has not received an official submittal from JCI/Tyco outlining the details of the system – not approved yet by DNR
- Site investigation is ongoing – not approved yet by DNR



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JCI/Tyco – Groundwater Extraction and Treatment System

Katie McGinty
Scott Potter



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The Path to a PFAS Solution: Integrated Water/Soil Source Control (IWSC)

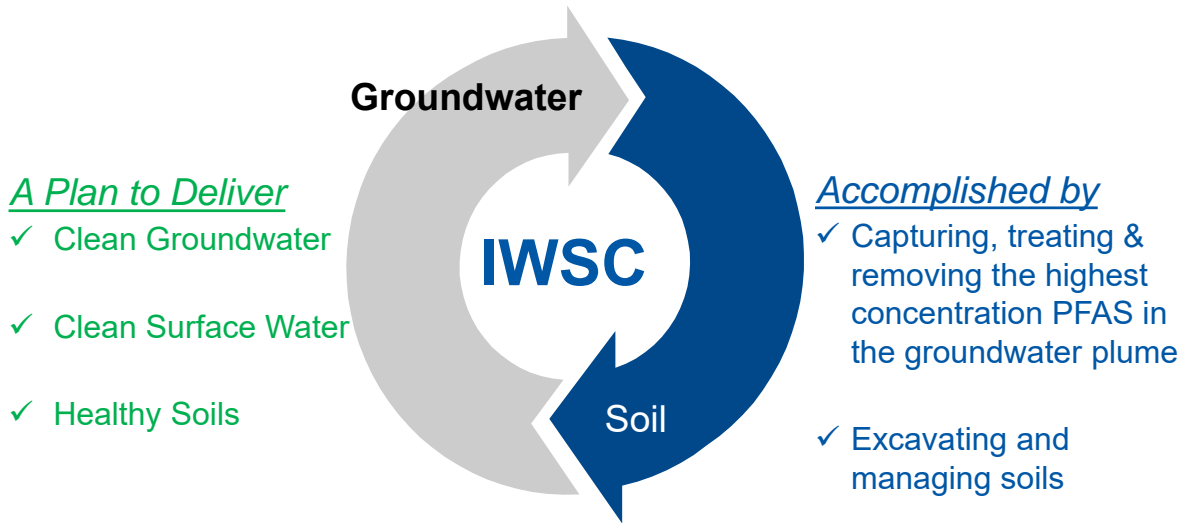
- A plan to deliver
- ✓ Clean Groundwater
 - ✓ Clean Surface Water
 - ✓ Healthy Soils

WDNR Meeting
January 20, 2020

tyco
Fire Protection Products

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Integrated Water/Soil Source Control



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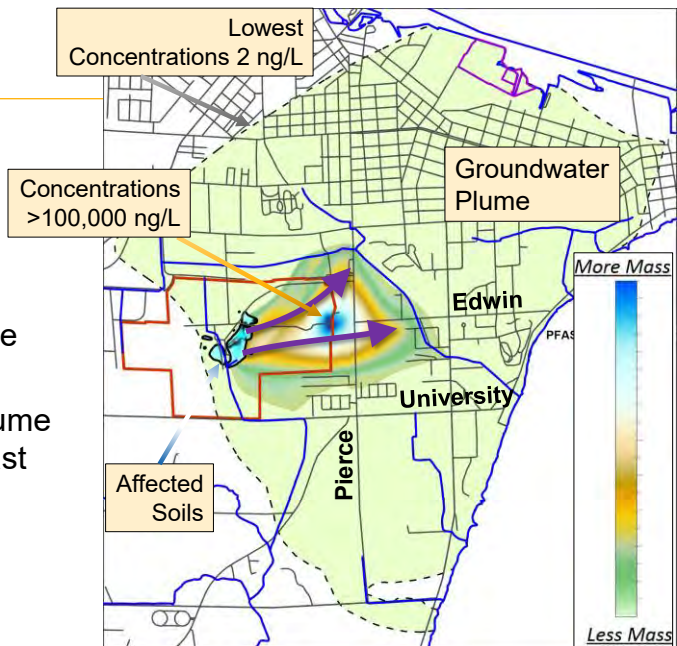
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Where is the PFAS?

Soils: The PFAS in the soils has flushed into the groundwater

Groundwater: The highest concentration PFAS in the groundwater plume is between the FTC and Ditch B

- Groundwater and the PFAS plume moves predominately to the east from the FTC



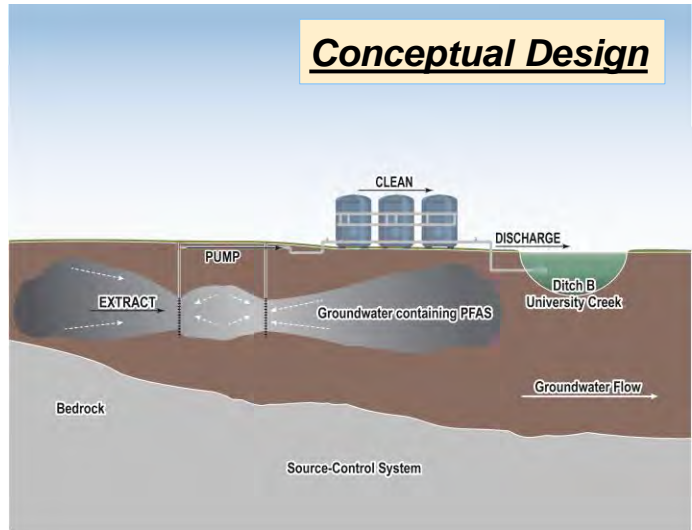
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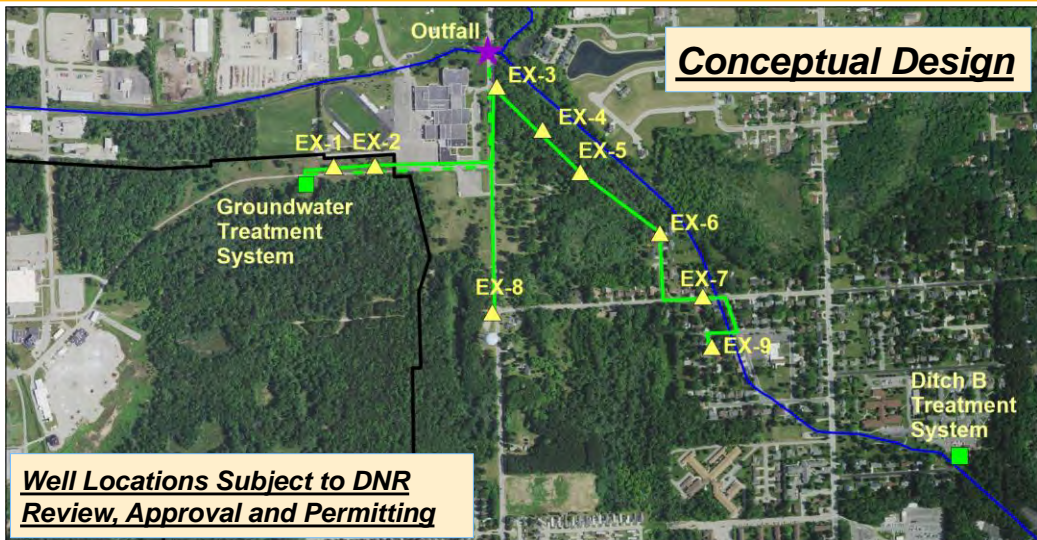
Getting rid of the PFAS

Subject to WDNR Review, Approval and Permitting

Extract, Pump & Clean Groundwater



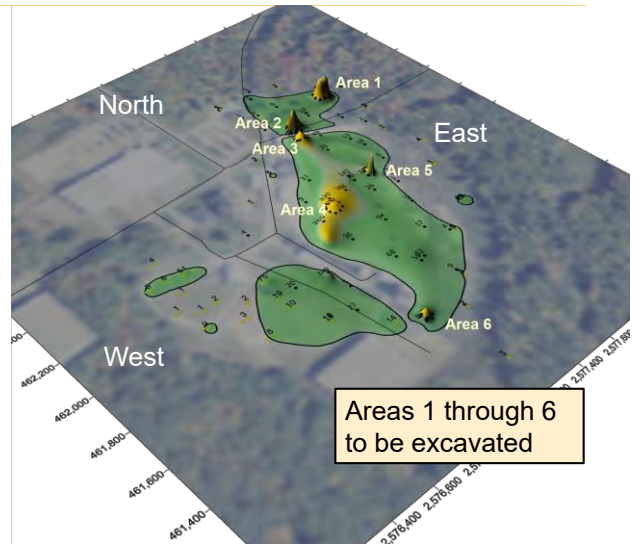
Groundwater Extraction and Treatment



Soil Samples Show Low-Level PFAS Detections

Most PFAS has Flushed from Soils to Groundwater

- Soil samples were collected across the FTC
- PFAS has been detected in soils where testing occurred
- Soil Concentrations are less than standards
- Areas with more PFAS will be excavated and managed



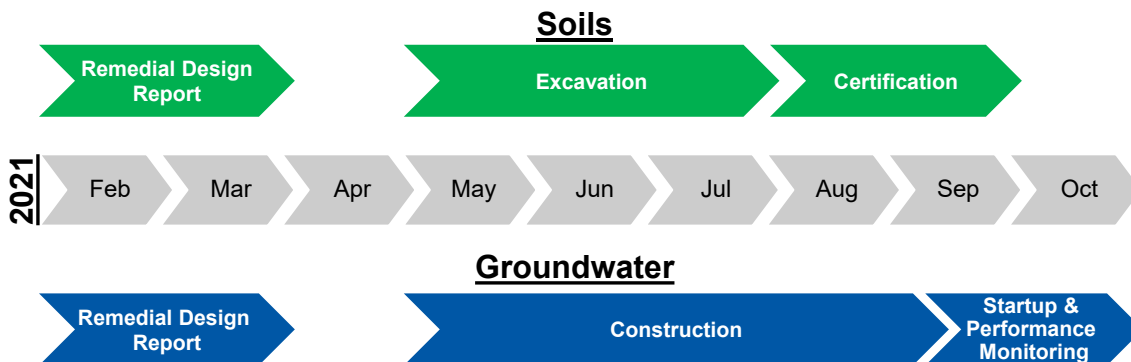
PFAS Solution for Soils

Objectives

1. **Excavate** PFAS from areas 1 through 6 in soils
2. **Remove** soils from the Site that are above standards
3. **Manage** soils excavated from construction and remediation activities

2021 Schedule / Next Steps – Groundwater & Soils

All Activities are pending Review, Approval and Permitting by WDNR



Interim Protective Measures Will Remain In Place

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Summary/Conclusion

A Path to Deliver a PFAS Solution

- ✓ Clean groundwater
- ✓ Clean surface water
- ✓ Healthy soils




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Department of Health Services

Brita Kilburg-Basnyat
Amanda Koch



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 **WISCONSIN DEPARTMENT**
of **HEALTH SERVICES**

DHS Updates

Amanda Koch, MPH
Health Educator

Brita Kilburg-Basnyat, Ph.D.
Toxicologist

Division of Public Health
DNR Listening Session
January 20, 2020

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New PFAS Groundwater Standard Recommendations

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**Wisconsin's groundwater standards
have 2 parts.**

Enforcement Standard

Preventive Action Limit



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PFAS Recommendations

Substance	Enforcement Standard	Preventive Action Limit
Perfluorotetradecanoic acid (PFTeA)	10 µg/L	2 µg/L
Perfluorobutanoic acid (PFBA)	10 µg/L	2 µg/L
Perfluorohexanoic acid (PFHxA)	150 µg/L	30 µg/L
Perfluorononanoic acid (PFNA)	30 ng/L	3 ng/L
Perfluorodecanoic acid (PFDA)	300 ng/L	60 ng/L
Perfluoroundecanoic acid (PFUnA)	3 µg/L	0.6 µg/L
Perfluorobutanesulfonic acid (PFBS)	450 µg/L	90 µg/L
Perfluorohexanesulfonic acid (PFHxS)	40 ng/L	4 ng/L
Perfluorododecanoic acid (PFDoA)	500 ng/L	100 ng/L
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX*)	300 ng/L	30 ng/L
Perfluorooctadecanoic acid (PFODA)	400 µg/L	80 µg/L
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	3 µg/L	0.6 µg/L

µg/L = micrograms per liter; equivalent to parts per billion (ppb)
 ng/L = nanograms per liter; equivalent to parts per trillion (ppt)

*Trade name

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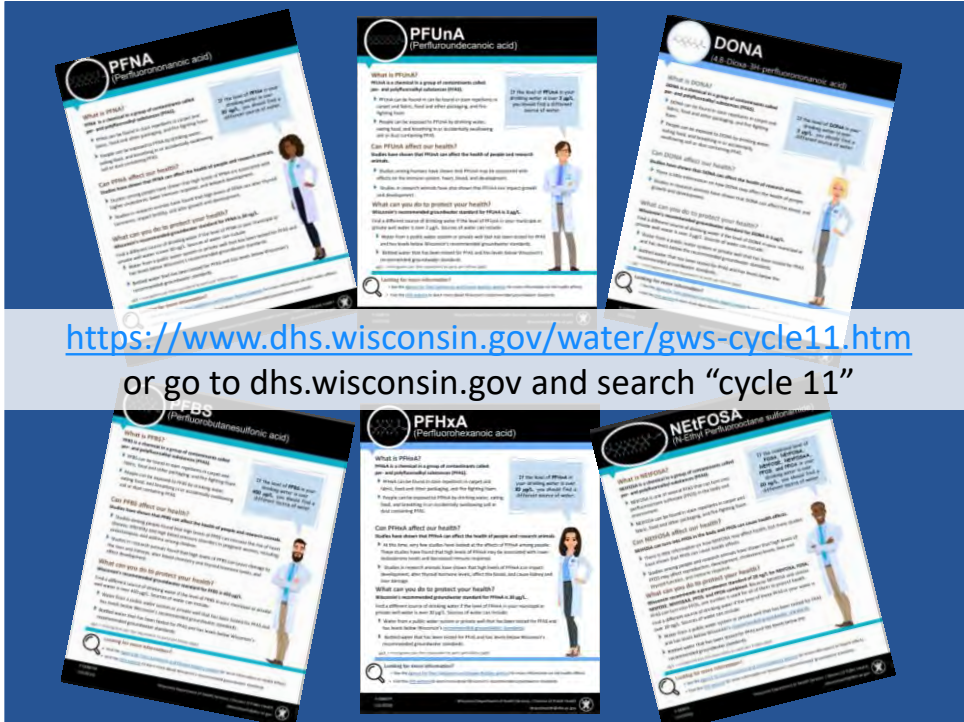
PFAS Recommendations

Substance	Enforcement Standard	Preventive Action Limit
Perfluorooctane sulfonamide (FOSA)	20 ng/L*	2 ng/L*
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA)	20 ng/L*	2 ng/L*
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	20 ng/L*	2 ng/L*
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	20 ng/L*	2 ng/L*

*Applies to the sum of FOSA, NEtFOSA, NEtFOSAA, NEtFOSE, PFOS, and PFOA

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COVID-19 and PFAS



U. S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30332-4027

November 6, 2020

The Honorable Daniel T. Kildee
U.S. House of Representatives
Washington, DC 20515

Dear Representative Kildee:

Thank you for your letter to the Secretary of Health and Human Services (HHS), Alex M. Azar II, regarding concerns about potential risks the Coronavirus Disease 2019 (COVID-19) may pose for individuals who have been exposed to per- and polyfluoroalkyl substances (PFAS). I am responding on behalf of Secretary Azar.

This is an important issue for the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR), and there is a lot more we can learn through further research. CDC and ATSDR are assessing the intersection between PFAS exposure and COVID-19, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

During this public health emergency and pandemic, HHS and its federal partners are periodically providing Congressional briefings to keep policymakers up to date on developments. We hope that you and your staff take advantage of these opportunities to get answers to your most pressing questions. Please contact Nancy Tomk in our CDC Washington Office at (202) 245-0600 or ntomk@cdc.gov if you have further questions.

We have provided answers to your questions in the attached Enclosure. The National Institutes of Health also reviewed and provided input to the Enclosure.

Thank you for the work you do to protect the American people and for your interest in this ongoing response. We appreciate your support, and that of Congress, as we all work together to fight COVID-19. CDC remains committed to protecting the American public during this pandemic. A copy of this response is also being sent to the co-signers of your letter.

Sincerely,

Robert R. Redfield, MD
Director, CDC and
Administrator, ATSDR

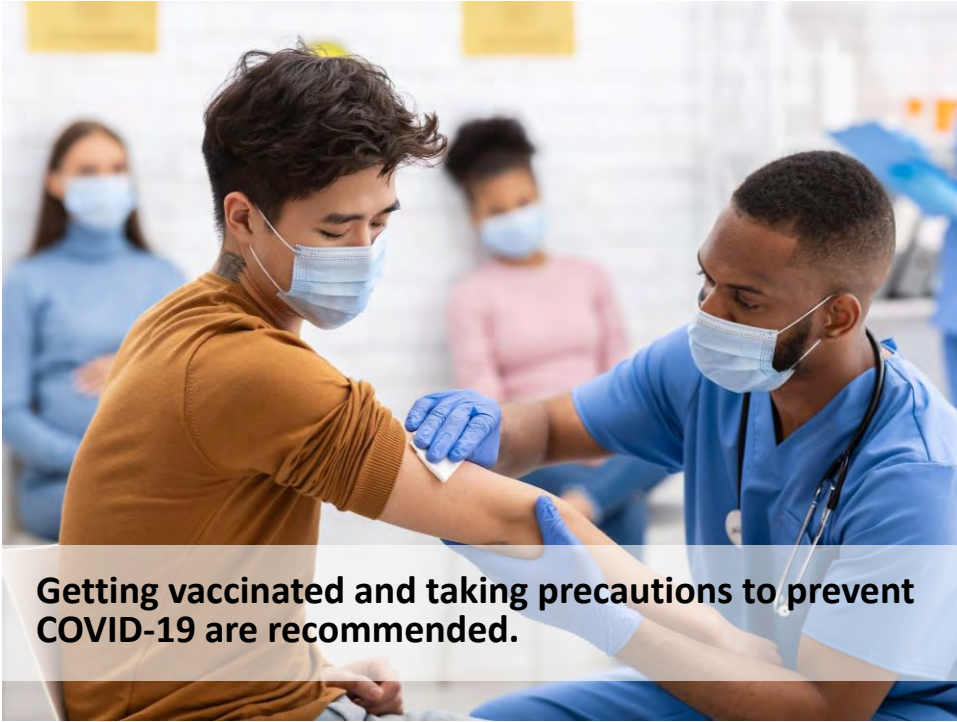
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COVID-19 is a new public health concern and more research is needed to understand how PFAS exposure may affect risk of COVID-19 infection.

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Getting vaccinated and taking precautions to prevent COVID-19 are recommended.

<https://www.dhs.wisconsin.gov/covid-19/index.htm>

Questions?

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Health Educator

Brita Kilburg-Basnyat, Ph.D.
Toxicologist

DHSEnvHealth@dhs.wisconsin.gov

Bureau of Environmental and Occupational Health
Division of Public Health | Wisconsin Department of Health Services

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Upcoming Important Dates

January

- EmR 2045 – Regulation of FFF containing PFAS – comments accepted until 1/22/21
- Send to:
kathrynm.stromhiorns@wisconsin.gov

February/March

- Second Packet Mailing – Opt In to have your well sampled

March

- Next Listening Session

April/May

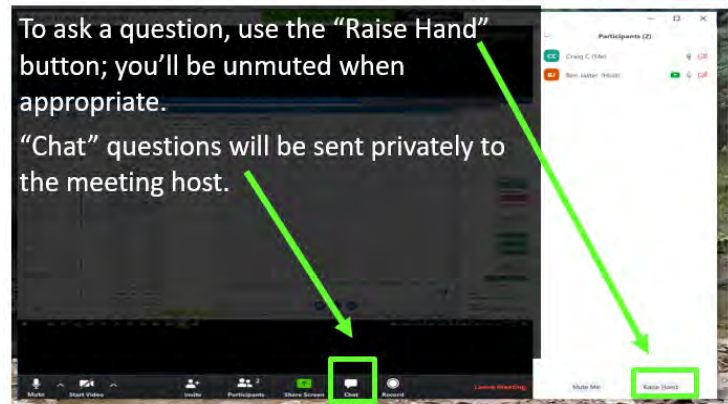
- Second round potable well sampling



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Ground Rules – Listening Session

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



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