

# Issues & Trends

August 17, 2021

PFAS and Other Emerging  
Contaminants – Site  
Investigation Scoping



# Zoom

- No video, please.
- Lines are muted.
- Questions?
  - Raise hand or use chat feature.
- Technical problems?
  - [Zoom.us](https://zoom.us) for help.



# 2021 Issues & Trends

Schedule at:

[dnr.wisconsin.gov/topic/Brownfields/Training.html](http://dnr.wisconsin.gov/topic/Brownfields/Training.html)

Stay updated at the RR Report:

[https://public.govdelivery.com/accounts/WIDNR/subscriber/new?topic\\_id=WIDNR\\_567](https://public.govdelivery.com/accounts/WIDNR/subscriber/new?topic_id=WIDNR_567)



Today's recording and previous  
webinars at:

[dnr.wisconsin.gov/topic/Brownfields/Training  
Library.html](http://dnr.wisconsin.gov/topic/Brownfields/TrainingLibrary.html)



# Jodie Peotter

Chief - Brownfields, Outreach and Policy



# PFAS External Advisory Group (EAG) Meeting

Friday, August 20, 2021  
11 a.m. – 2 p.m.

Zoom link/information on PFAS EAG web site:  
<https://dnr.wisconsin.gov/topic/PFAS/PEAG.html>



# Recent Publications from the Remediation and Redevelopment Program

RR-606 – Guidance on the Case Closure Process and Continuing Obligations: Wis. Admin. Code chs. NR 725 to 727

RR-115 – Guidance: Contaminated Sediment Fact Sheet



# For Upcoming Guidance Documents

Public Comment:

<https://dnr.wisconsin.gov/topic/brownfields/publicnotices.html>

Notified via RR Report:

[https://public.govdelivery.com/accounts/WIDNR/subscriber/new?  
topic\\_id=WIDNR\\_567](https://public.govdelivery.com/accounts/WIDNR/subscriber/new?topic_id=WIDNR_567)





# Judy Fassbender

Complex Projects and Technical Resources  
Section Chief



# RR Issues and Trends

PFAS and Other Emerging Contaminants - Site Investigation Scoping



# Agenda

What is Site Investigation Scoping (NR 716.07)?

Scoping for Hazardous Substances that are considered Emerging Contaminants (ECs)

A Closer Look

1) Resources for Scoping 2) History & Use 3) Historical Fires

PFAS Sampling

Summary

# *What is Site Investigation Scoping?*

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- NR 716.07
- A “desktop” review
- An evaluation to ensure the scope of the field investigation is appropriate for the complexity of the site
- Includes potential or known discharges and impacts
- Determine whether sampling is needed at the site  
→ substantiate your determination in the evaluation submitted to DNR



# SI Scoping for Hazardous Substances that are Considered Emerging Contaminants (EC)

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- Certain emerging contaminants (ECs), including certain PFAS, meet the definition of “hazardous substance” under Wis. Stat. s. 292.01(5)
- Discharges of hazardous substances are required to be investigated and cleaned up under Wis. Stat. 292 and Wis. Admin. Code ch. NR 700-799

# Scoping for Emerging Contaminants (EC) that are Hazardous Substances

- Certain emerging contaminants, including certain PFAS, should be evaluated as part of your site investigation scoping per NR 716
- An SI may be considered incomplete if unaddressed
- May delay closure if unaddressed





# SI Scoping – NR 716.07

- Site history/historical operations
- History of discharges and sources of those discharges
- PFAS use associated with historical operations (or likelihood of) at the site
- Media affected
- Potentially impacted receptors
- Other
- **Other relevant data**
  - *Determination if EC sampling should be conducted on-site*
  - *Reference source for PFAS sampling determination (e.g. ITRC, peer reviewed journal article, etc.)*



# SI Scoping - Submittal

- Summarizes information found (e.g., NR 716.07 components) and discuss likelihood of PFAS use or discharge at the site
- Should be part of SI workplan
- Must be completed before a site can receive case closure
- Must indicate whether sampling for ECs is recommended based on evaluation





# SI Scoping - Review

DNR will evaluate scoping statements based on NR 716, looking at:

- Is site history discussed?
- Have potential and known discharges been evaluated?
- Have potential and known impacts been evaluated?
- Has a statement been provided as to whether the RP does or does not recommend sampling (and why)?
- Has information on the type(s) of chemicals used at the site been provided?



# SI Scoping - Review

Note: DNR will ensure all sites have an adequate scoping statement for emerging contaminants that meet the definition of a hazardous substance, including certain PFAS, prior to closure



# A Closer Look

- Resources for Scoping
- History & Use
- Landfills & Fill
- Historical Fires



# Resources for SI Scoping - ITRC

- Naming Conventions and Physical and Chemical Properties
- **History and Use**
- Environmental Fate and Transport
- **Site Characterization Considerations**, Sampling Precautions, and Laboratory Analytical Methods
- Remediation Technologies and Methods
- **Aqueous Film Forming Foam**

<https://pfas-1.itrcweb.org/>





# Other Resources for SI Scoping

- Peer reviewed journal articles
- Database searches
- Information from other states
- OECD (Organisation of Economic Co-operation and Development) – *multiple reports* → *search PFAS from home page*
- Other reputable sources



# History & Use

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Make sure to thoroughly discuss processes and products at the site.

# History & Use

Dry cleaners:

- Did waterproofing occur at the site?
- If waterproofed textiles were laundered, where did the wash water go?



# History & Use

## Textiles:

- Were products coated?
- Were products treated?
- Were products waterproofed?





# History & Use

Bulk fuel oil:

- Is/was AFFF kept on site?
- Was it ever deployed?
- If it was deployed, how was it contained or cleaned up?



# History & Use

Paper companies:

- Was paper treated to be waterproof or grease proof?
- Were surfactants added as part of pulping processes?
- How was wastewater treated?





# History & Use

## Manufacturing:

- Were chemical coatings used (provide info on chemicals)?
- Were mist suppressants used?
- Where was waste/wastewater disposed?

An aerial photograph of a large landfill site. In the foreground, a wide, paved road or conveyor belt runs diagonally across the frame. To the right of this road, there is a large pile of waste material, including what appears to be construction debris and household trash. Several yellow excavators and bulldozers are positioned around the waste pile, actively working. A few white and blue trucks are also visible, some parked and others in motion. In the background, the landfill extends towards a coastline with some trees and buildings under a clear blue sky.

# History & Use

- Landfills – often contain wastes with PFAS including
  - Products made or treated with PFAS,
  - Consumer products
  - Direct disposal of PFAS from a primary source (e.g., foam manufacturing company).
- Fill
  - Is there a reason to believe the fill contains PFAS?
  - How is the fill going to be managed?
  - **Talk to your DNR Project Manager**

# Historical Fire Activity on Site

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- Information about historical fires should be included in the site history
  - When did the fire occur?
  - Size of fire, approx. volume of foam deployed (show impact area on map if possible)
  - Did foam contain PFAS, Type of foam used (class, brand), Safety Data Sheet for foam used
  - Was the environment impacted?
  - Determination if site investigation should include components associated with the discharge of PFAS containing foams
- If AFFF with PFAS was discharged with a potential impact to the environment and/or nearby receptors, the SIWP should include investigation activities due to the historical fire activity

# PFAS Sampling



# PFAS SI Workplan

- *Is soil sampling alone adequate?*
  - Due to chemical and physical properties of PFAS, soil sampling alone is not enough
- *Groundwater sampling is recommended*
- *Encourage submitting SIWP w/fee to obtain DNR provide feedback on PFAS sampling adequacy*



# Sampling Reminders

- Sample and analyze for the WI PFAS list (currently 33) – found on [DNR Lab Cert website](#)
- Use a WI certified laboratory – found on [DNR Lab Cert website](#)
- In addition to DHS recommended standards, remember to evaluate any drinking water results against the DHS [hazard index approach](#) (immediate action for alternative water)





# Summary



- A scoping statement evaluating hazardous substances, including certain ECs such as PFAS, is required for every open site in order to be considered for case closure
  - narrative describing NR 716.07 criteria as it relates to hazardous substances that are ECs (with supporting materials as appropriate)
  - include a determination of whether sampling is required on site
- Where PFAS sampling is required, include groundwater





Q+A

# CONNECT WITH US

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"WILD WISCONSIN:  
OFF THE RECORD"