



Issues & Trends

September 21, 2021

Contaminated Sediment Guidance

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

Stay updated at the RR Report:

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



REMINDER

New Milwaukee DNR Mailing Address

**Wisconsin Department of Natural Resources
1027 W St. Paul Ave.
Milwaukee, WI 53233**



You are strongly encouraged to submit documents online via the [RR Program Submittal Portal](#).

For more information about online submittals, including how to use the document uploader, please see the [Guidance for Submitting Documents \(RR-690\)](#).

You may also contact your Project Manager if you have questions.



Recent Publications from the RR Program

RR-0136 – Guidance: Wisconsin Vapor Quick Look-Up
Table

RR-0137 – Guidance: History of Changes to Vapor Action
Levels, Vapor Risk Screening Levels and Attenuation Factors
for Common Volatile Organic Compounds (VOC) in
Wisconsin



Upcoming Publications

From the RR Program

RR-619, *Guidance: General Liability Clarification Letters*

RR-060, *Guidance for Management of Contaminated Soil and Other Solid Wastes*



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)



Carrie Webb

Sediment Team Leader

Erin Endsley

Complex Sites Expert





Contaminated Sediment Guidance

Programs on the DNR Integrated Sediment Team

- Remediation & Redevelopment
- Office of Great Waters
- Solid Waste
- Water Quality
- Water Management
- Legal Services



R&R Sediment Staff

- Angie Carey, Complex Sites Engineer
- Carrie Webb, Sediment Team Leader
- Chris Dietrich, Southeast Region
- Erin Endsley, Complex Sites Expert
- Joseph Graham, Northern Region & St. Louis River AOC PM
- Judy Fassbender, Section Chief and team sponsor
- Margaret Brunette, Hydrogeologist Program Coordinator
- Sarah Krueger, Northeast Region
- Scott Inman, South Central Region & Milwaukee AOC PM
- Xiaochun Zhang, Water Resources Engineer



Finding sediment sites on BOTW

Financial:

Start Date:

End Date:

DNR Project Manager:

Affected Another Property Sediment Contamination

Continuing Obligations Superfund

Dry Cleaner Superfund NPL

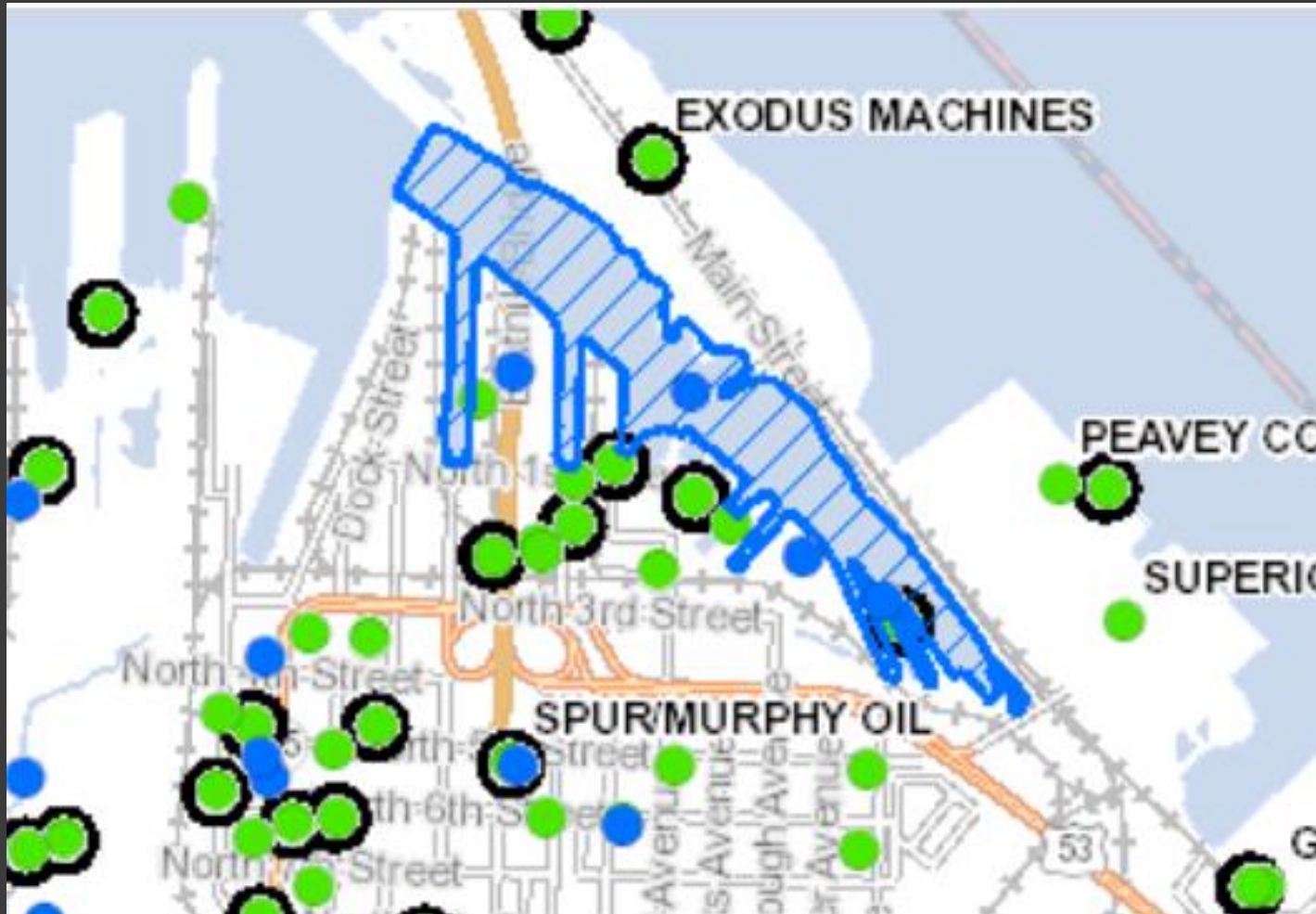
On RR Sites Map WI DOT Site

PECFA Eligible

Sort Results: Descending



RR Sites Map



Sediment Guidance

1. Contaminated Sediment Fact Sheet (RR-0115)
2. When should a site investigation enter surface water? (RR-0117)
3. Guidance for Sediment-Related Continuing Obligations for Environmental Protection (RR-0126)
4. Caps and Covers for Residual Contamination (RR-0939)
5. Guidance on Addressing Contaminated Sediment Sites in Wisconsin (RR-0124)



1. Contaminated Sediment Fact Sheet (RR-0115)

Basic outline of the typical approaches that are used to navigate through Wisconsin Statutes ch. 292 and Wisconsin Administrative Code chs. NR 700 to 799 with respect to the investigation and remediation of contaminated sediment.



1. Contaminated Sediment Fact Sheet (RR-0115)

“Sediment” means particles in the bed of a **navigable water** up to the **ordinary high-water mark** that are derived from the erosion of rock, minerals, soil, and biological materials and from chemical precipitation from the water column and that are **transported or deposited by water**.

Wis. Stat. § 292.01(17g)



1. Contaminated Sediment Fact Sheet (RR-0115)

- A person reporting the discharge of a hazardous substance is not automatically designated as the responsible party.
- NR 716 site investigation must include an evaluation of potential pathways for migration of the contamination.
- Sediment assessments under NR 347 and investigations under NR 716



1. Contaminated Sediment Fact Sheet (RR-0115)

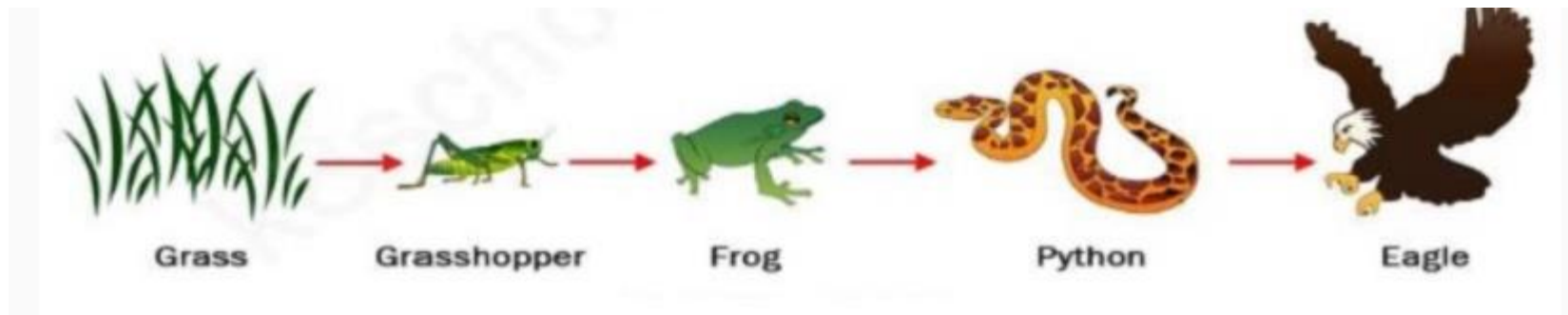
- DNR works with the RP to establish site-specific cleanup standards
 - *Consensus-Based Sediment Quality Guidelines* is a useful reference for sediment assessment (visit dnr.wi.gov, search “RR-088”)
- Remedial action must restore the environment to the extent practicable and minimize the harmful effects of the hazardous substances

Wis. Admin Code NR 726.09(2)(f)



2. When should a site investigation enter surface water? (RR-0117)

NR 716 requires an evaluation of known or potential impacts to all environmental media and receptors (fish, bird, animal, and plant life) as well as the potential pathways for migration of the contamination

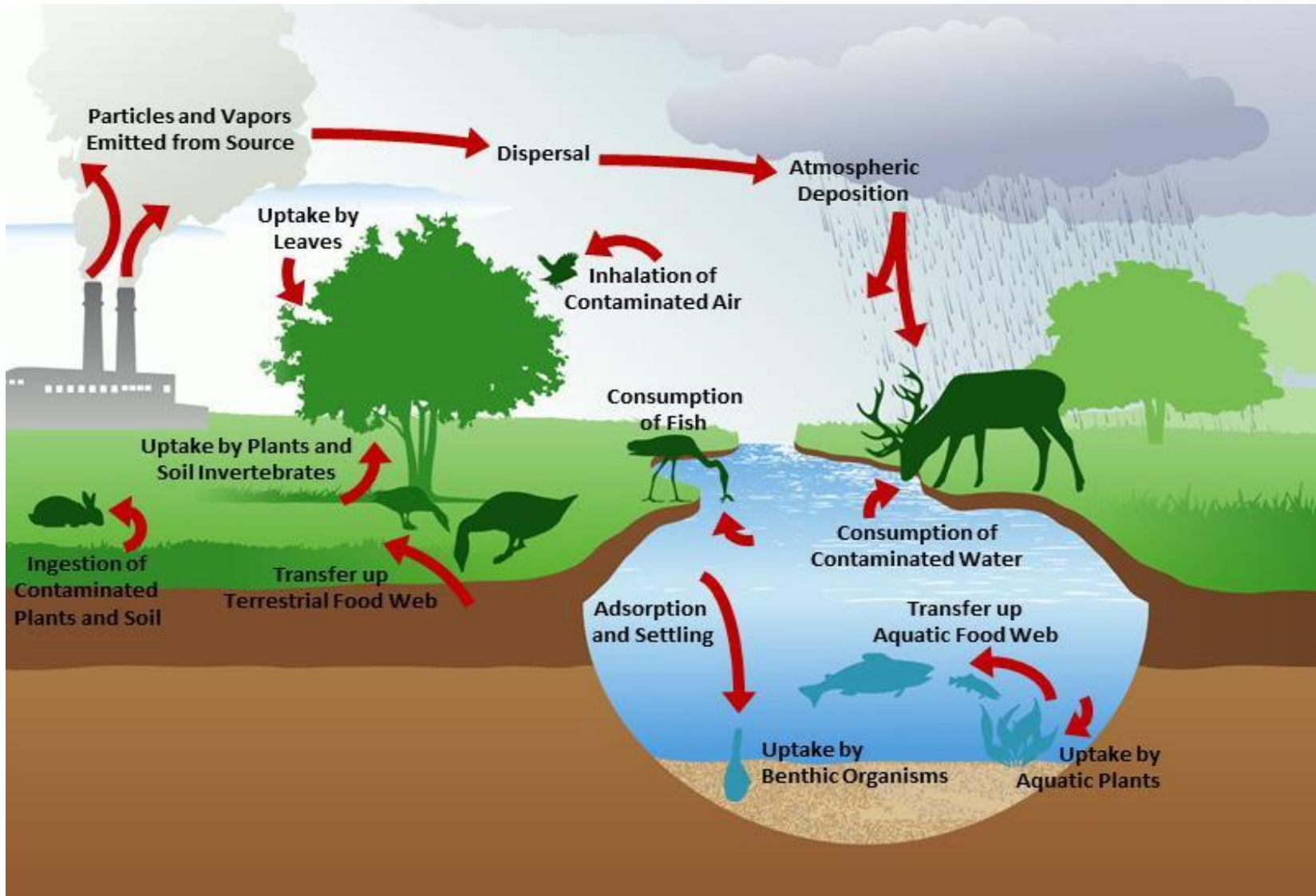


Factors in NR ch. 716 to consider:

- Land use history
- Contamination in sediment or surface water
- Degree and extent of soil and groundwater contamination
- Type and quantity of hazardous substances
- Potential impacts to receptors
- Groundwater hydraulically connected to the waterbody?
- Fill or waste material
- Hydrology and hydraulic characteristics
- Evidence a release may have entered the water
- Potential pathways, flow patterns, point sources, land runoff, etc.



2. When should a site investigation enter surface water? (RR-0117)



Adapted from: [Multimedia Fate and Transport Modeling – General](#)
EPA



3. Guidance for Sediment-Related Continuing Obligations for Environmental Protection (RR-0126)

- The responsibility for the maintenance of the engineering control (e.g., sediment cap) belongs to the party responsible for the cleanup action.
- The riparian owner is not responsible for maintaining the engineering control but may not interfere with the continuing obligations.



3. Guidance for Sediment-Related Continuing Obligations for Environmental Protection (RR-0126)

- Following completion of the remedial action, the person responsible for cleaning up contamination must notify affected property owners of the proposed continuing obligations on their off-site property **before** the site may be submitted for case closure.
- Documentation related to continuing obligations are posted in BOTW



4. Caps and Covers for Residual Contaminated Sediment (RR-0939)

Engineering control - an object or action designed and implemented to contain contamination or to minimize the spread of contamination, including a cap, soil cover, or in-place stabilization, but not including a sediment cover.

Wis. Stat. § 292.01(3m)



4. Caps and Covers for Residual Contaminated Sediment (RR-0939)

- A sediment cap requires engineered design and construction and a continuing obligation for long term maintenance
- Long term requirements include:
 - Plan and compliance schedule for maintenance and investigation if a structural impediment is removed
 - Proof of financial responsibility

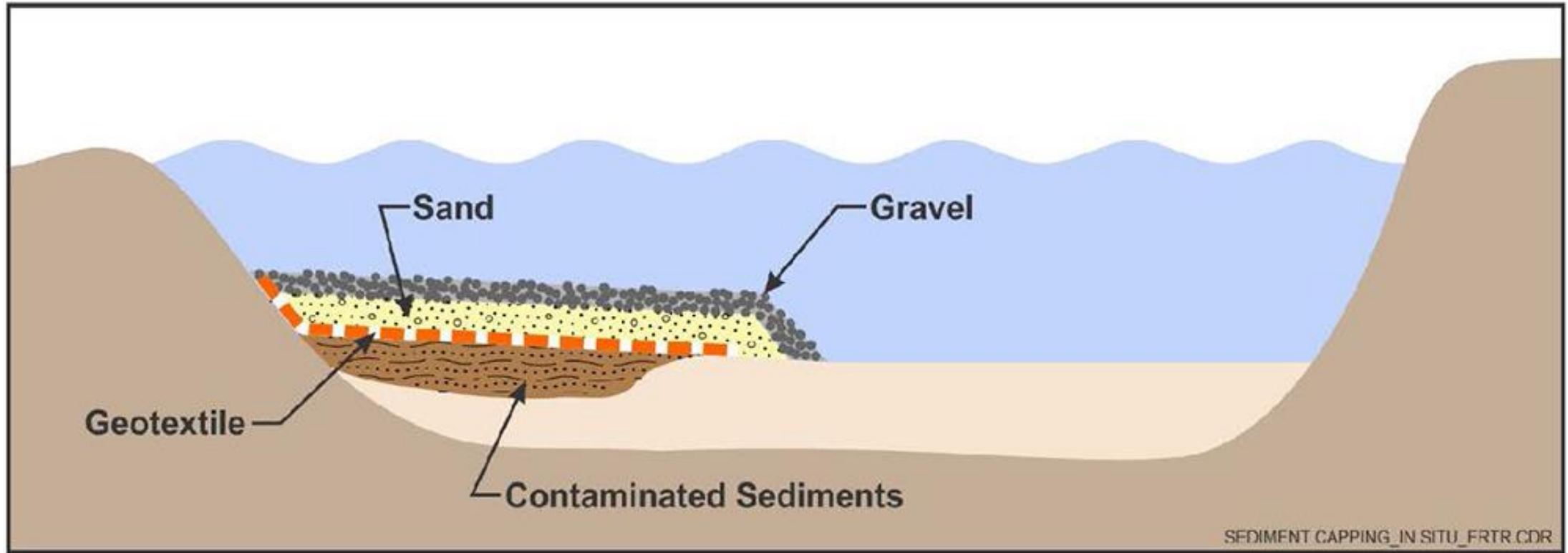


4. Caps and Covers for Residual Contaminated Sediment (RR-0939)

- Sediment cover means a layer of uncontaminated sand or similar material that is deposited on top of contaminated sediment.
- A sediment cover is a thin layer of clean fill placed on residual contaminated sediment or the existing sediment surface to help achieve remediation goals more quickly



Sediment cap vs. cover

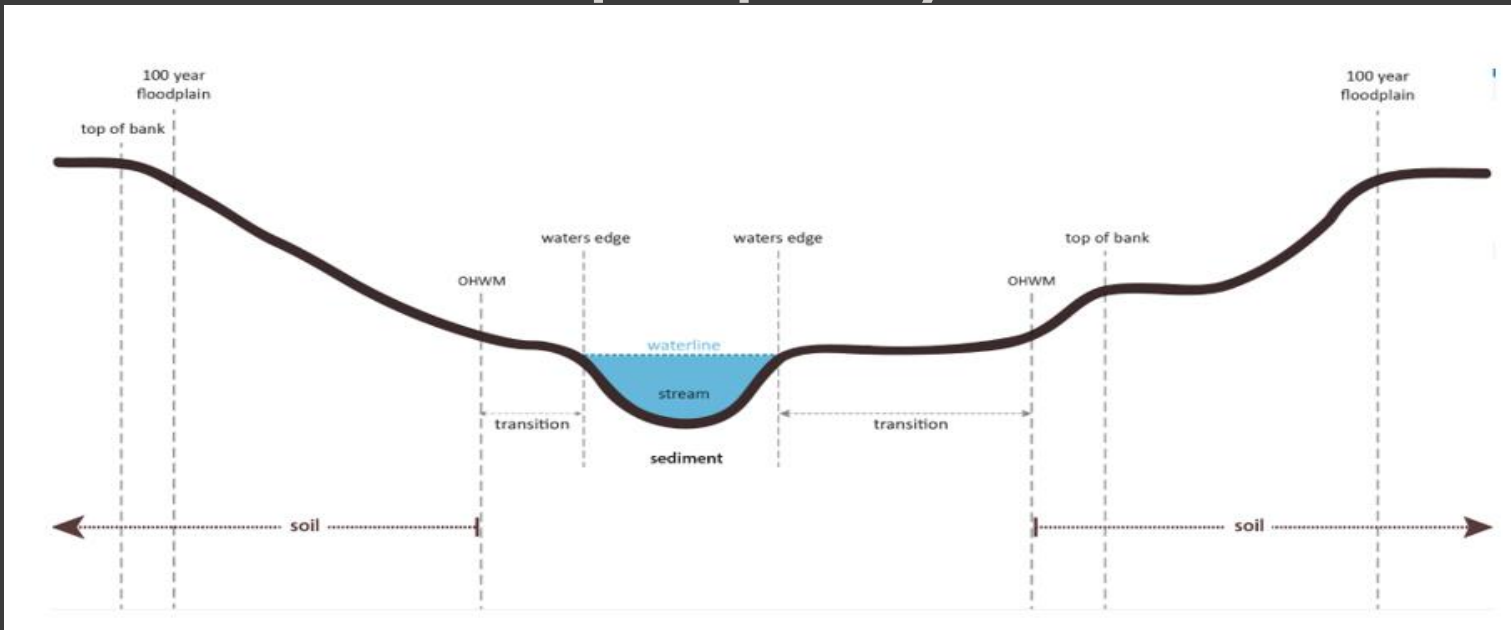


*Source: Federal Remediation
Technologies Roundtable*



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Legal authority
- Difference between sediment and soil
- OHWM and property boundaries



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Discovery
- NR 347 vs. NR 716
- Discharge notification and No Action Required
- Immediate and interim actions
- Public participation



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

□ Site investigations

- Scoping

- Work plans

- Sampling and laboratory methods

- SI report



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Management/Disposal/Reuse
- Establishing clean up levels
 - Ecological risk
 - Human health risks
 - Background



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Standards for selecting remedial action
- Identification and evaluation of remedial action options
- Engineering controls and sediment covers
- Design reports, plans, and specifications
- Permits and other regulations that may apply



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Remedial and interim action implementation, operation, and maintenance
- Construction monitoring
- Performance verification
- Long term monitoring
- Case closure



5. Guidance on Addressing Contaminated Sediment Sites (RR-0124)

- Continuing obligations
- Financial responsibility
- Tracking
- VPLE



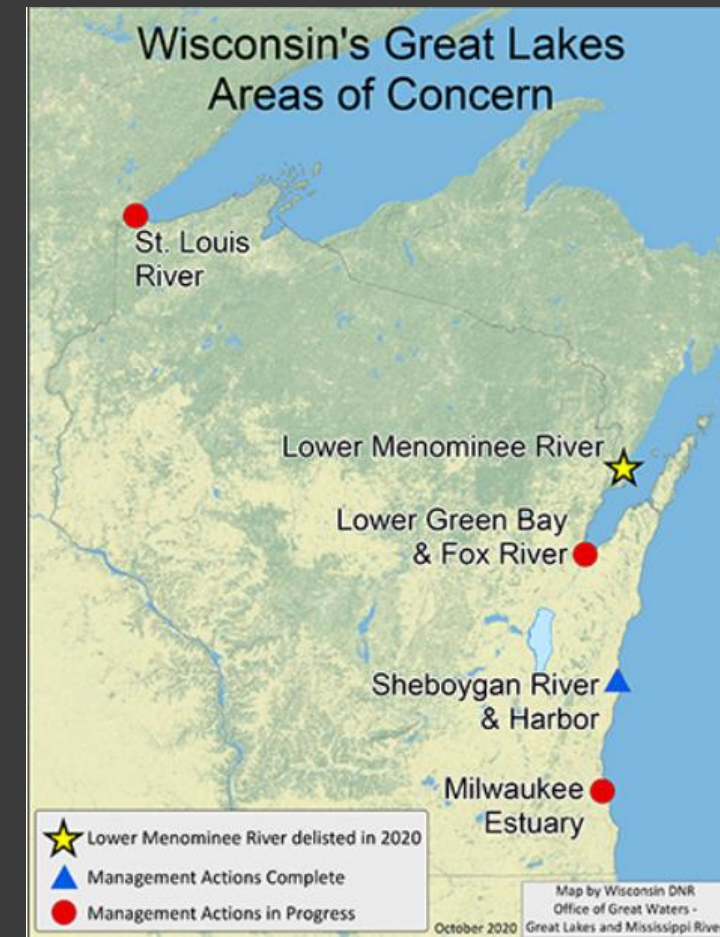
Status of sediment guidance

1. Contaminated Sediment Fact Sheet (RR-0115)
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3. Guidance for Sediment-Related Continuing Obligations for Environmental Protection (RR-0126)
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Areas of Concern

- Lower Menominee River - completed and delisted
- Fox River - dredging completed
- Sheboygan River – remedial action completed
- St. Louis River – in various stages
- Milwaukee Estuary – in various stages



Future IST action items

- Financial assurance guidance
- NR 347 guidance
- Beneficial reuse of sediments
- PAHs in sediment
- Update existing guidance



Questions?

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THANK YOU!