

# Classification of Sediment & Soil

Contaminated Sediments External Advisory Group Meeting  
February 8, 2016

# Classifying sediment and soil

Originally proposed vertical demarcation lines:

- Water's Edge
- Ordinary High Water Mark (OHWM)
- 100-year Floodplain

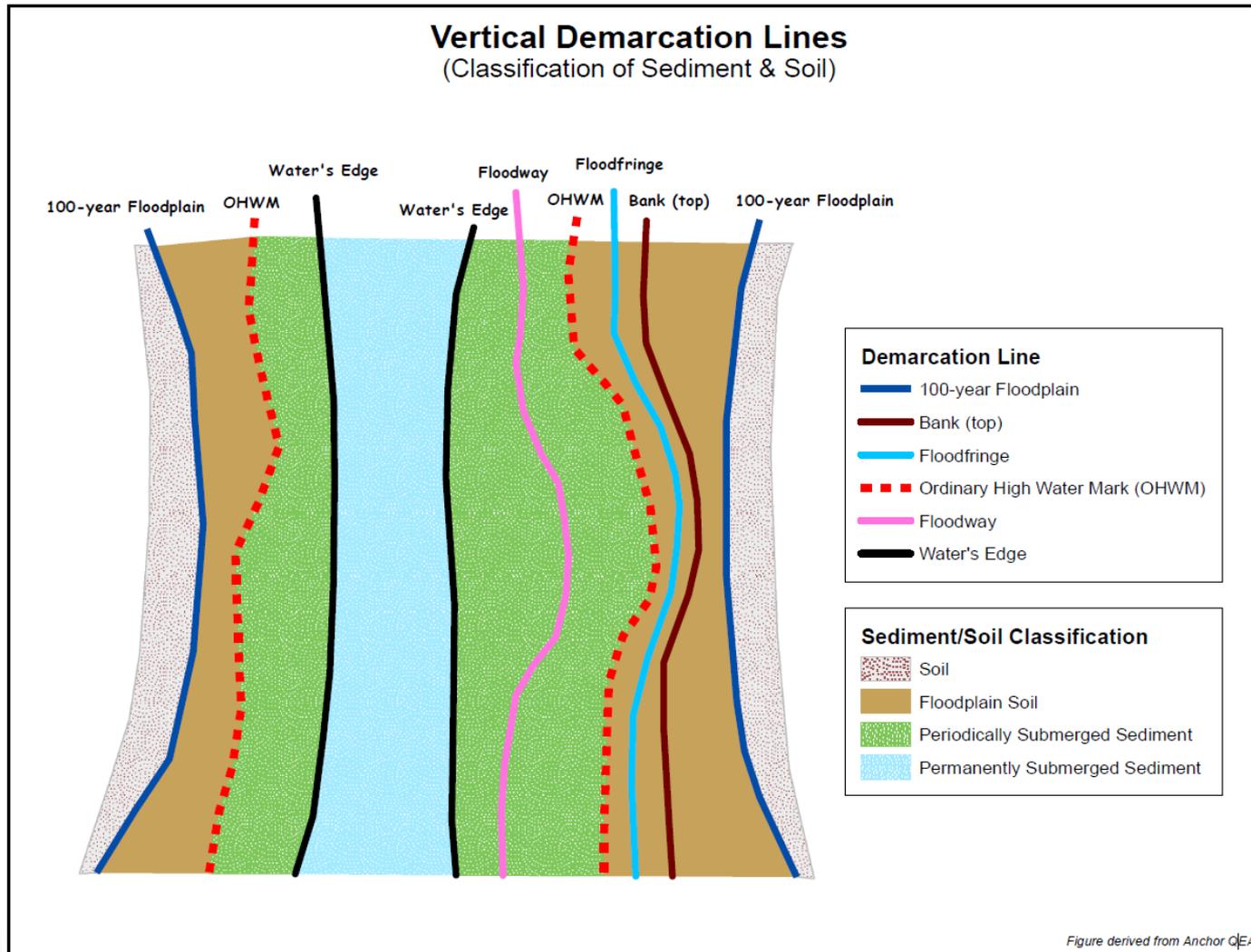
Additionally considered vertical demarcation lines:

- Bank (Top)\*
- Flood fringe\*\*
- Floodplain\*\*
- Floodway\*\*

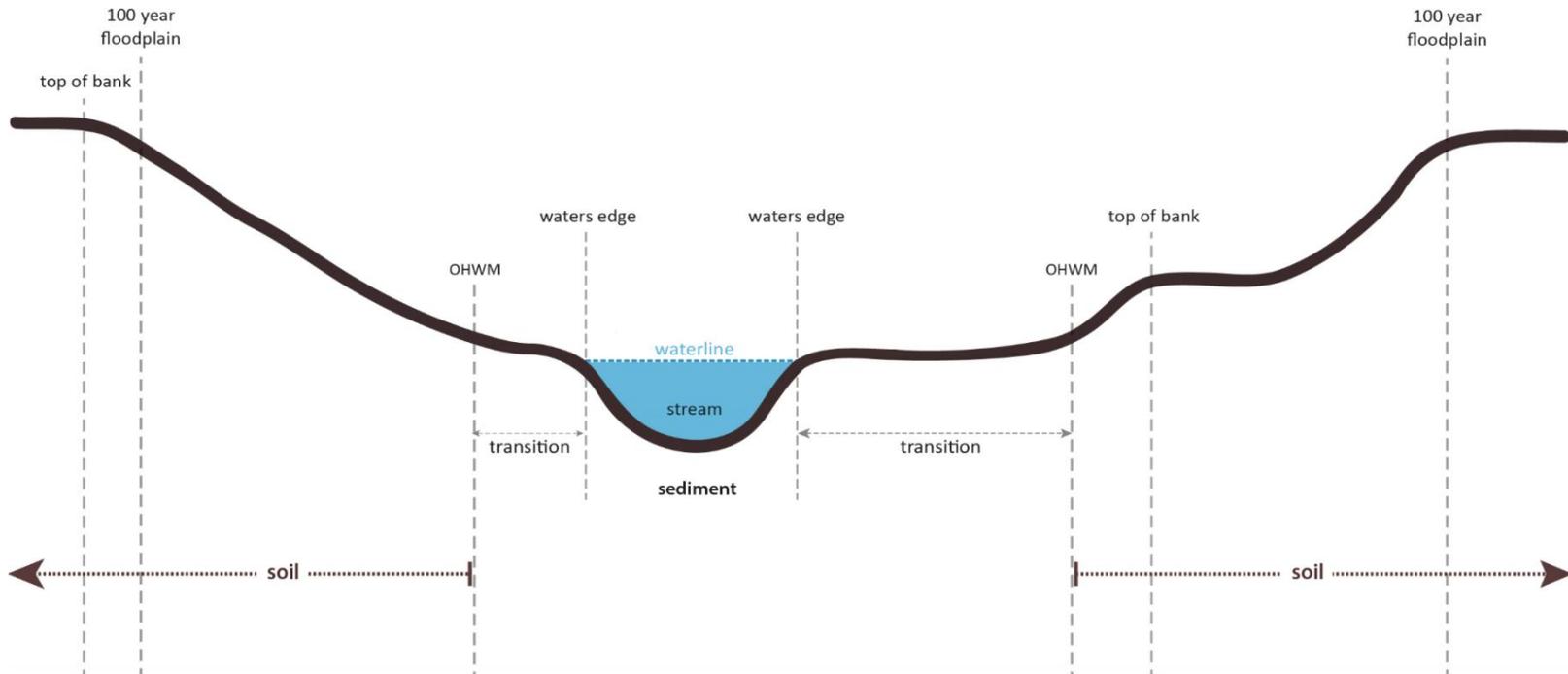
\* Defined in NR 341.035 , Wis. Admin. Code

\*\* Defined in NR 116, Wis. Admin. Code

# Options for classifying sediment and soil



# Options for classifying sediment and soil



# Recommended Option - OHWM

The OHWM was selected because:

- Static approach for determining a vertical demarcation line
- Reasonable distance from the water's edge
- Retains the existing site-specific evaluation process
- The DNR's database of OHWM determinations is growing
  - Surface Water Data Viewer (<http://dnr.wi.gov/topic/surfacewater/swdv/>)
- Consistent with the public trust doctrine
- Supported by the Contaminated Sediments External Advisory Group

# Application of OHWM Option

---

## **WATER's EDGE**

*(Annual/Seasonal High)*

Use CBSQG

---

## **TRANSITION AREA**

*(Between Water's Edge and OHWM)*

Use the more protective of CBSQG or NR720

or

Pursue site-specific RCL

---

## **Ordinary High Water Mark**

---

## **UPLAND - SOIL**

*(Above OHWM)*

Use NR 720 unless NR 716.07(8)(a), (b) and/or (c) apply

Site-specific RCLs may be necessary for sites that meet NR 716.07(8) criteria.



# Site-specific RCL Evaluation Criteria - Transition Area

- Proposed Evaluation Criteria:
  - Sensitive Environment – defined in NR 700.03
  - Fish and wildlife public health advisories for the water body involved
  - Areas with known contamination (i.e. SWIMS and/or BRRTS data)
  - Areas of concern (i.e. other beneficial use impairments)
  - Filled Areas
  - Areas intended for beach nourishment and/or beneficial reuse
  - Contaminant Characteristics (e.g. toxicity, mobility, volume, persistence, degradation potential, etc...)
  - Biota – what is currently present vs. what should be present

# Site-specific RCL Evaluation

## Criteria - Transition Area (cont.)

- Proposed Evaluation Criteria:
  - Historic/Current/Future Land Use and Zoning
  - Bank/Slope Stability and Erodibility
  - Frequency of flood events
  - Exposure time to receptors
  - Water Velocity/Scour
  - Surface water drainage patterns
  - Likely to cause a violation of surface water quality standards contained in NR 102 to 106
  - Invasive species
  - Enrolled in VPLE program

# Site-specific Evaluation Criteria - Land

- Potential for impacts to any of the following per NR 716.07(8):
  - (a) Species, habitat or ecosystem sensitive to the contamination.
  - (b) Wetlands, especially those in areas of special natural resource interest as designated in s. NR 103.04.
  - (c) Outstanding resource waters and exceptional resource waters as defined in ss. NR 102.10 and 102.11.
- Other pathways of concern per NR 720.13.
- General requirements when establishing soil cleanup standards applicable to a site or facility per NR 720.07:
  - Calculator
  - Alternative approach
- U.S. EPA – Region 3 ecological soil screening levels

Questions?