

**Contaminated Sediments External Advisory Group (CSEAG)
Work Group Meeting: Guidance Criteria Related to Sediment Quality Guidelines
April 27, 2016 Meeting Minutes**

External Participants

Karen Dettmer, Frank Dombrowski, Dean Haen, Bruce Olson, Laurie Parsons, Jeanne Tarvin, Shar TeBeest, and Mark Thimke

Department of Natural Resources Participants (DNR):

Margaret Brunette, Kristin DuFresne, Bill Fitzpatrick, Steve Galarneau, John Morris, Lis Olson, and John Robinson

Work Group Purpose and Goals

The DNR is seeking input from the work group to identify general and site-specific evaluation criteria for the assessment of contaminated material in sediment and the transition zone. The information obtained from the work group will be considered by the DNR.

The DNR intends to create a guidance document that outlines a seamless, comprehensive, consistent and coordinated approach for managing contaminated sediment sites. DNR staff, from various programs, and externals are the intended users of the guidance document.

The DNR does not have the authority to initiate a rule making process to develop sediment standards.

Guidance Development Discussion



Consensus Based Sediment Quality Guidelines (CBSQG)

The Consensus Based Sediment Quality Guidelines, Recommendations for Use and Application, Interim Guidance, December 2003 document is:

- based on the 2001 MacDonald et. al. work.
- a screening tool.
- not intended to be used as a standalone document.
- used as a guide to determine when additional sediment screening is needed.
- used to drive discussions related to remedial action.

The DNR has a spreadsheet (attached) that can be used as a tool to compare sediment data against the PECs and TECs identified in the CBSQG. Refer to the spreadsheet instructions and disclaimer prior to use.



Tiered Approach

A three tiered approach was proposed.

- Tier 1 – Default Numbers
 - Establish conservative/protective default numbers.
 - < “X” = No additional sediment assessment needed.

- > “X” = Additional sediment assessment needed.
 - This approach creates a benchmark that will enable externals to establish realistic cost estimates related to redevelopment, assessment, and remediation activities.
- Tier 2 - Default Numbers + Site-specific Evaluation Criteria
 - Use the default numbers as a basis with the option to consider site-specific evaluation criteria (e.g. contaminant characteristics, toxicity data, physical environment, etc...).
- Tier 3 – Risk assessment process.
- Comments/Recommendations:
 - Establish an approach that has off-ramps.
 - Consider using the CBSQG TECs as the default numbers.
 - There is a large universe of compounds to consider default values for. Initially, the DNR should consider focusing on a small number of compounds. Consider starting with PAHs.
 - Need to identify the site-specific evaluation criteria and hierarchy for Tier 2.
 - Need to consider how the default numbers would be applied (i.e. investigation, remediation, restoration, and disposal).
 - Establish an approach that allows sign-offs/approvals along the way. Evaluate if/when fees should be assessed.

Business Needs

The externals and DNR have different business needs.

- Externals - Redevelopment
- DNR – Protection of human/ecological health and the environment

Externals should inform DNR if they know of any sites that are not being addressed or that are stalled.

Externals should consider whether or not Green Team meetings would be beneficial for sediment sites.

Risk Assessment vs. Risk Management

Risk assessment and risk management are two separate phases. Many times go to risk management option(s) before risk assessment is complete.

- Risk assessment (first phase)
 - Site characterization
 - Define the degree and extent of contamination (e.g. conceptual site model and NR 716 type approach)
 - Identify the risk(s) and pathway(s) of concern
- Risk management (second phase)
 - Assess management options (e.g. in-situ, ex-situ)
 - Assess cost
 - Can be performance based
 - Need to establish and agree on targets/end points/cleanup goals

Data Collection and Interpretation

How will collected data be used/evaluated?

- There are several resources that can be used to characterize contaminated sediment (refer to PowerPoint slides 4, 5 and 6).
 - Has the MacDonald work been updated?
 - Are there other resources that should be considered?
 - What resources do EPA Region 5, GLNPO, USACE and GLDT rely on?
- Consider surface weighted average concentration (SWAC)
- Total organic carbon (TOC)

How to determine background concentrations?

- Setting (urban/rural)
- Number of data collection points (up-gradient/down-gradient)
- Sources (point source/non-point source)
- EPA background document

How to deal with contaminants that have detection limits greater than standards?

Is a Phase I type assessment process/outline needed?

Is a checklist needed?

Next Meeting

The next work group meeting will be held on May 25, 2016 in Madison. The DNR will send out an electronic meeting invitation.

Action Items

- The DNR will create a table that lists contaminants and their respective range of contaminant concentrations. The contaminant concentrations will be obtained from the CBSQG, NR 720 soil calculator, and EPA Region 5 ecological screening levels. The table will be used as a means to compare the different types of sediment/soil screening values.
- The DNR will gather information related to select topics referenced in the Data Collection and Interpretation section (above).
- Frank Dombrowski will provide the work group with a summary of recent “determining background” documents in the public domain.