Release, Bioavailability and Effects of Contaminants Associated with Resuspended Sediments at Superfund Sites (Contaminated Sites MYP)

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**Approach (cont.)**
- Identify sediment characteristics that are the best predictors of contaminant release during resuspension.
- Develop sampling techniques for measuring dissolved and bioavailable organic contaminants in the water column released during resuspension.

**Results (cont.)**
- Measured versus Predicted PCB Release from Superfund Site Sediment
- AVS consistently over-predicted metal release while particulate organic carbon tended to under-predict PCB release.
- Mixing with Helium Added
- Polychaetes in the aerated treatment showed about 30% greater bioaccumulation of PCBs than worms in the other treatments.

**Conclusions**
- Mixing with air added resulted in a trend of increased bioaccumulation of PCBs in the treatment in which sediments were mixed with air added.
- Using polyethylene devices to sample dissolved phase PCB demonstrated increased concentrations during dredging events as compared to non-dredging conditions.

**Impacts, Outcomes and Future Directions**
- Information generated from these investigations will assist the Office of Superfund Remediation and Technology Innovation to reduce uncertainty around the effects of resuspension at Superfund sites undergoing dredging, specifically.
- Our research will produce the underlying science needed by the Office of Superfund Remediation and Technology Innovation to reduce uncertainty around the effects of resuspension at Superfund sites undergoing dredging, specifically.
- All of the work described herein is ongoing, and future outcomes will allow the Office of Superfund Remediation and Technology Innovation to understand the impact of resuspension on contaminant bioavailability.
- Information generated from these investigations will assist the Office of Superfund Remediation and Technology Innovation to reduce uncertainty around the effects of resuspension at Superfund sites undergoing dredging, specifically.