

Remedial Options Program

2014 Activities Overview

SRST Meeting
March 19, 2014



Overview of ROPs Activities 2014

- **Field Pilots**
- **University Studies**
- **Preparation for Phase 1 Interim Measures (AOC 4)**

ROPs Co-Leads

- Robert Brent
- Nancy Grosso
- Rich Landis
- Jim Dyer
- Scott Brooks



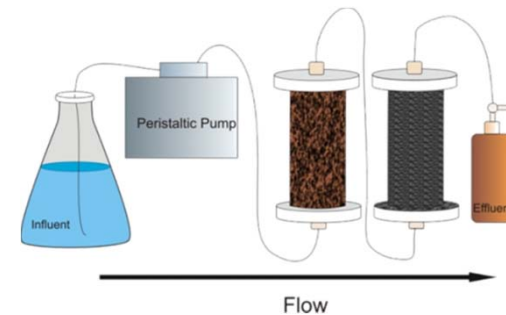
SR Field Pilots

- Bank Stabilization Pilot (2009 to present)
 - Test efficacy of conventional bank stabilization to control particle associated mercury loading & enhance habitat
 - Continued successful results
- Pond Pilot (2011 to Present)
 - Evaluate viability and efficacy of biochar as a treatment in a floodplain pond
 - Pond flooding and communication across barrier (control/amended) may have reset conditions
- Proposed Floodplain Pilot
 - Laboratory Studies: nearly complete
 - Field Implementation: possibly Fall 2014



University of Waterloo (Carol Ptacek)

- Characterization, leaching properties and treatment options for soil and sediment



Texas Tech (Danny Reible)

- Pore water/sediment assessment (DGT and voltammetry) and nanoparticle characterization with Helen Su Kim (Duke University)
- Reactive Capping (laboratory mesocosm & model simulator) testing of biochar amendments and Mn(IV)O_2

VIMS (Mike Newman)

- Complete lab study of impact of biochar on amphipods
- Develop models to predict the MeHg bioaccumulation by biota in amended/unamended sediments



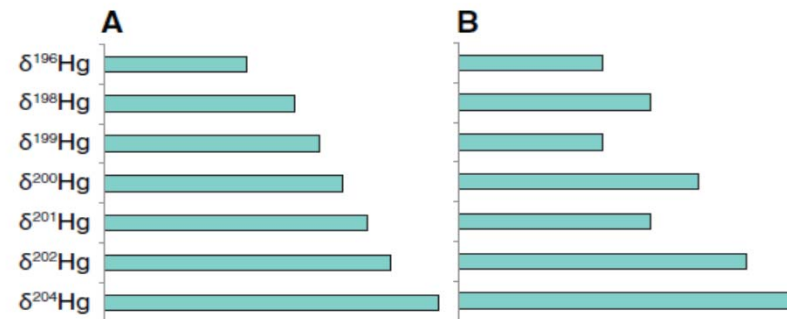
Colorado State University (Will Clements)

- Study potential effects of biochar on the structure and function of aquatic ecosystems using mesocosms



University of Michigan (Joel Blum)

- Natural stable Hg isotope composition for possible insights into Hg / MeHg sources, transport, transformation and uptake by organisms



RRM 3.5 Study Area – collaboration among University of Delaware (Sparks/ Lazareva), Waterloo, Texas Tech, DuPont and URS

- Biogeochemical dynamics in the GW/SW transition



Phase 1 Interim Measure for South River

Design and Construction Planning

- Bank Management Areas defined through data collection and integration
 - Bank Sampling (URS)
 - Bank Surveys (AnchorQEA)
 - Dendrochronology (Stotts, University of DE)
 - Hydrodynamic Model – EFDC (AnchorQEA)
 - LiDAR Resurvey (University of Delaware)
- Preparation of IM WP and Preliminary Design Report



Questions?

