

Update on Army ERDC Research for US EPA

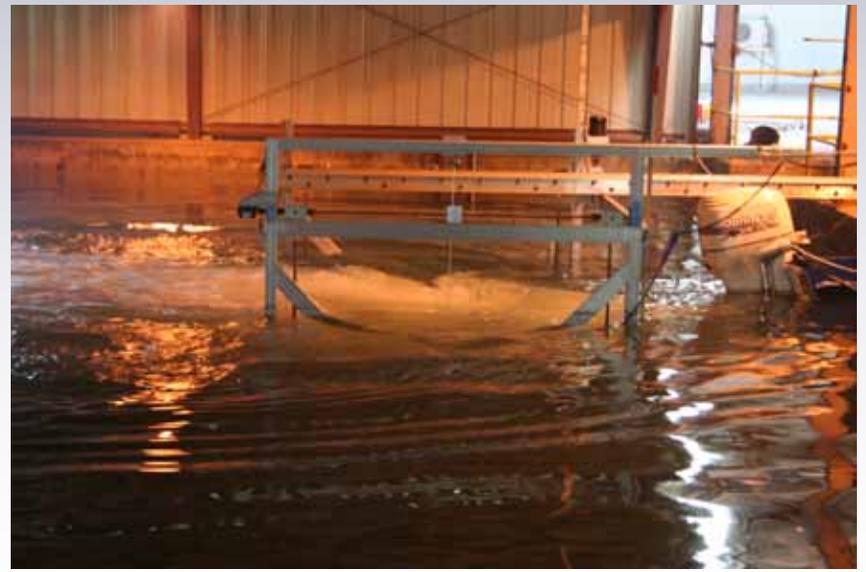
Karl Gustavson and Todd Bridges
Army Engineer Research and
Development Center, Vicksburg, MS



Update on EPA-sponsored ERDC Research and Activities

Applied Research

1. Effects of recreational prop-wash on cap stability and erosion
2. Carbon and amendment injection for caps
3. Physical stability of mixed sediment caps
4. Direct analysis of persistent organics in sediment



Sediment Research Laboratory: Testing for Cap Placement



Contaminated Sediment Capping Guidelines Update and Support

1. Technical Notes on Monitoring of Capping Performance
 - Assessing short and long-term performance of a cap (chemical, physical, and biological components); restoring/upgrading caps.
2. Capping Guidelines Update
 - Subset of the original ARCS guidance with updated sections based on technical notes.
3. Short Issue Papers
 - Preliminary assessment of sediment stability.
 - Characterizing key site conditions to support remedy screening.

Site-specific Support

- De-novo research and modeling efforts
- Analysis, review, and development of components of the remedial investigation, risk assessment, and feasibility study documents
- Many recently completed and ongoing efforts:
 - United Heckathorn, Duwamish River, Portland Harbor, Grasse River, Upper Columbia River, Passaic River, New Bedford Harbor, Tittabawasee River, Quendall Terminal
- Support on EPA's Contaminated Sediment Advisory Group (CSTAG)

Research for GLNPO

- Support for Great Lakes Legacy Act Remediation Projects
 - Developing and implementing monitoring plans and research components to support capping remedies
 - Testing of active cap materials on site sediments to evaluate ability to reduce in-situ exposures to contaminants of concern

