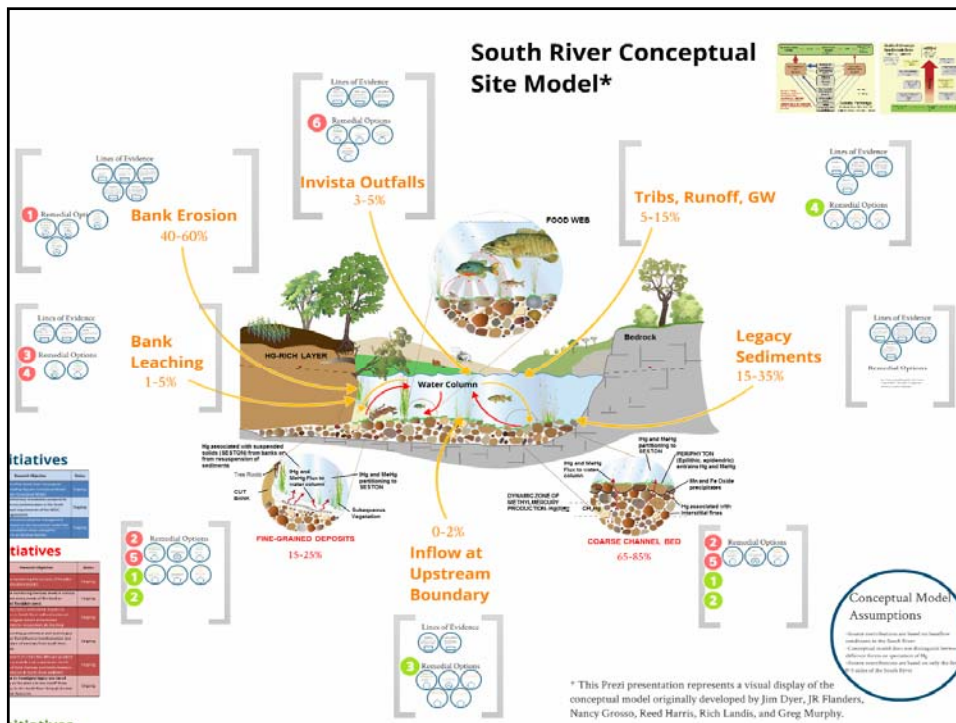


# Remedial Options Program Review of Ongoing Initiatives

October 8, 2014



## Broad Initiatives

	Initiative	Primary Investigator	Research Objective	Status
1.	Phase I Remediation	Clay Patmont	Design and implement Phase I Interim Measures for remediation of South River (SR AOC4).	Workplan complete; Beginning design phase
2.	Enhanced Adaptive Management Framework	Christy Foran	Prepare an enhanced adaptive management framework based on the conceptual model that can direct remediation steps and gather information in an iterative fashion.	Ongoing
3.	Relative Risk Model	Wayne Landis	Develop relative risk model for human and ecological risks in the South River.	Nearly complete; beginning integration with EAM model
4.	Mercury Cycling Model	Reed Harris	Develop Mercury Cycling Model for application to the South River.	Just beginning

## University Studies Supporting Remedial Activities

	Initiative	Primary Investigator	Research Objective	Status
1.	Bank Sampling and Erosion Potential	Jim Pizzuto	Repeat LiDAR investigations to better estimate erosion potential of South River banks.	Ongoing
2.	Reactive Capping	Danny Reible	Investigate the potential of reactive capping in the South River using mesocosm experiments.	Ongoing
3.	Characterization and Treatment of Sediment and Soil	Carol Ptacek	Laboratory batch and column studies to characterize South River soil and sediment and investigate potential treatment approaches to reduce mercury leaching.	Nearing completion

## Monitoring Activities

	Initiative	Primary Investigator	Research Objective	Status
1.	Long-Term and Short-Term Monitoring Plan	URS	Develop and implement monitoring plans to track progress of remedial activities.	Developed; Integrating with Phase I Design, and EAM framework
2.	Stable Isotope Analysis	Joel Blume	Explore forensic monitoring potential of stable Hg isotopes in South River.	Just beginning
3.	Pore Water Measurements	Danny Reible	Continued work on developing DGT probes and voltammetry for pore water monitoring.	Ongoing

## Biochar Effect Studies

	Initiative	Primary Investigator	Research Objective	Status
1.	Biochar Effects on Invertebrates	Mike Newman	Laboratory study of biochar and sediment effects on invertebrate growth and feeding.	Completed
2.	Biochar Effects on Invertebrate Communities	Will Clements	Field study of biochar effects on invertebrate communities.	Ongoing

# Field Pilots

	Initiative	Primary Investigator	Research Objective	Status
1.	Bank Stabilization Pilot	URS	Monitor stability, longevity, and mercury loading from restored bank.	Monitoring continues to show success
2.	Floodplain Pond Amendment Pilot	URS	Monitor mercury in various ecosystem compartments of a biochar amended floodplain pond.	Completed; decommissioning beginning
3.	Floodplain Soil Amendment Pilot	URS	Investigate effects of floodplain biochar amendments on soil invertebrates, plants, and mercury uptake.	Laboratory studies complete; field studies beginning