

SRST minutes

July 21, 2009

Introductions: *Don Kain, DEQ*

Newsletter, Publications, Outreach, Safety, etc.: *Mike Liberati and Ralph Stahl, DuPont*

- On The River '09 Front Royal, VA-SRST will have a manned display at this event.
- South River Clean Up- Sept. 11, 2009. Paul Bugas (DGIF) is planning a river clean up. All who are interested can contact him.
- SETAC meeting in November
- Interdisciplinary/International Hg conference being held at William and Mary University April 27th, 2010
- Ralph showed slide displaying SRST manuscripts.

Thermal Imaging Project: *Mike Sherrier, DuPont*

- See slides
- Further analysis is needed to determine less apparent groundwater discharge
- Slides and data on FTP site
- Photos show temperature differential, not actual temperatures
- Also, it only indicates surface temperatures

Human Exposure Task Team: *Annette Guiseppi-Elie, DuPont*

- See slides
- Dr. Larson talked about health department survey
 - 95 people sampled-goal is 100
 - 12% surveyed eat fish from river
 - Most know about the advisory

Ecological Studies: *Todd Morrison, URS*

- See slides
- 6 year study; currently in year 4
- Clam study showing higher methylation rates at Port Republic site
- Difference between MeHg concentrations between larvae and adult insects
- Fish showed increasing THg concentrations down river and increase in age class

NRDA Activities: *Todd Morrison, URS*

- See slides
- Working through injury memos
- Developing approach for restoration planning

Updated loading estimates – contemporary bank erosion: *Jim Pizzuto, U. Delaware*

- See slides
- 5 miles of bank stabilized would equal a 90% reduction in Hg loading

Residence Time of Hyporheic Mud: *Jim Pizzuto, U. Delaware*

- See slides
- Successfully sampled and dated fine-grained sediments from 2 sites on the gravel bed of South River
- Bed material from the two areas sampled is as much as 100 years old at depths of 25 cm.
- Hg in these deposits is likely to persist indefinitely
- Sediment ages suggest an apparent long term sediment accumulation rate of about 2 mm/yr
 - Possibly related to slow lateral migration and point bar accumulation

South River Statistical Analysis: *John Green, DuPont*

- See slides
- Lots of data!
- Riverbanks appear to be a major source of THg, MeHg to the river
- Model consistent with deposition of Hg in sediment
- Follow up work will evaluate:
 1. The reduction in Hg levels in surface water if input from specific sections of riverbank were eliminated
 2. The improvement, if any, of additional terms to the model

Remedial Options Team/Innovative Task Team: *Nancy Grosso, DuPont*

- See slides
- Current and ongoing activities:
 - Hg Remediation Case Studies Review
 - Approach for Reviewing and Testing Remediation Technologies
 - Soil characterization and geochemistry at Shifflett Farm and Plant Site
 - Laboratory Studies findings “Sedimite”
 - Bank Stabilization Pilot

Biological Studies: *Erin Mack, DuPont; Anne Condon, USFWS*

- See slides
- 2009 Projects:
 - Hg Dosing in Song Birds
 - Spatial Trends of Hg in Songbirds
 - Carolina Wren Reproductive Success
 - Spatial Trend of Hg in Bats
 - Hg Effects in Snapping Turtles and American Toads
 - Trophic Modeling

Wrap Up: *All*

- Expert Panel Meeting Oct. 6-7, 2009
- William and Mary Hg Meeting April 22-25, 2010