

South River Science Team

April 8, 2008

Welcome – Don Kain, DEQ

Outreach – Mike Liberati, Du Pont

Newsletter

Upcoming

Thursday, Erin Mack giving talk at UVA

April 18th – Conservancy in Cold Water

April 19th -20th – Flyfishing Festival

Week of April 26th – Riverfest

Living River/Cave Program at Grand Caverns

6th grade meaningful watershed experience

Booked – attracting classes from Va Beach

Grand Caverns.org

Safety – Mike talked about importance of safety in the field. Used Trey Wahl (DEQ) experience of severe poison ivy from floodplain sampling.

Meetings and Publications – Ralph Stahl

6th National Water Quality Monitoring Conference

May 18th-22nd, Atlantic City

SETAC – November, Tampa

Publications

JR and Todd starting 2 papers on ecostudy

Garden Study

Jim P. has a couple in various stages, 3 by end of summer

Ralph and Dick's work

Dan Cristol – Science

Mike Newman – 2 in next 6 months

Working Hypothesis – Nancy Grosso, Du Pont

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/SR%20Working%20Hypotheses%2004-08.ppt>

6 levels

Not just hypothesis but also observations to support understanding

External sources (out of river)

Most in floodplain upper 12 miles

Changing ideas on outfall's impact

Internal sources (in river)

Methyl Hg in river

Methylation higher in spring than summer

Ted asked about large amount of Hg during Hurricane Jeanne

Different than other “storm” events

Lots of discussion
?ask John Green to look at varying flood events
Ralph – data may not be there
Ecostudy does not have large storms
Sample procedure different bucket/pump
Difference between Hg on sand and silt/clay
Robert asked if Hg level measured from river bottom
Wayne Shifflet (land owner) asked about risk of exposure to water and sediments
Much discussion
Annette – need to communicate with VDH

Geomorphology – *Jim Pizzuto and Katie, U. DE*

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/Geomorphology%20Update,%20April%202008.ppt>

Propose study to investigate “hump”

Earthworms – *John Cianchetti, JMU*

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/SRSTEarthwormShow.pps>

Hg pattern follows similar pattern as other organisms along river
Methyl Hg follows no pattern

Ecostudy Flux Chambers – *Rich Landis, Du Pont and J. R. Flanders, URS*

http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/eco%20study%20flux%20chamber4_08.ppt

Flux chambers will be deployed in 2008

Floodplain Sampling – *Calvin Jordan, DEQ and Scott Gregory, URS*

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/Floodplain%20Soil%20Sampling.ppt>

Gave overview of sampling

TMDL – *Jack Eggleston, EPA*

http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/TMDL_Apr08_SRST_JE_and_RB.ppt

Biota Studies – *Erin Mack, Du Pont*

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/Update%20on%20Critter%20Work%20Mack%2004-08-08.ppt>

Overview of all biota studies

Trophic Model – *Mike Newman, William and Mary*

<http://southriverscienceteam.org/doclibrary/Meetings/2008-04-08%20Science%20Team%20Mtg/Trophic%20Transfer%20Modeling%20April%2008%202008.ppt>

3 organisms that were high in Hg, probably because of feeding strategies

Black flies – ingest organic carbon

2 snails – eat surface scum

Total Hg model not possible yet

Periphyton on plastic sheet real numbers, but not what snails are eating

Next Meeting July 15, 2008