

South River Science Team

Minutes

March 14, 2012

New format to meeting style: Instead of a day of presentations by different researchers, the actual SRST meeting was only a half day long with representatives from each of the task teams giving updates of task team actions and future directions. The previous day and a half was used for individual task teams to meet. All of these meetings were open and all future task team meetings are open to anyone wanting to participate. Currently there are three active task teams. They are listed below with persons to contact if one wants to get involved with that task team.

Program Integration Task Team (regulatory and legal drivers) - Mike Liberati

Remedial Options Programs Task Team – Nancy Grosso

Human Exposure Task Team – Annette Guiseppi-Elie

Program Integration Task Team: *Mike Liberati, DuPont*

- Slides with presentation.
- DuPont created this task team to see if there was a common remedial approach and implementation that satisfies the requirements and goals of all the regulatory programs which include the NRDC settlement, RCRA, NRDA, TMDL and the SRST.
- Met for the first time the morning of March 14, 2012
- NRDC final report due August 2012
 - Report will likely result in remedial action on river/floodplain hopefully using approaches developed by ROPs team.
- Current ROPs approach:
 - River: control point source (plant site) then other significant areas of loadings (models pt to banks)
 - Floodplain: amendments (such as carbon) and current agricultural practices.
- Creating flow chart of programs to connect similarities.

Remedial Options Program Task Team: *Nancy Grosso, DuPont*

- Slides with presentation
- Last two meetings were Feb. 8th and March 13th. The March 13th meeting was to hear results of work done by Cindy Gilmour (SERC).
- Current field work includes research pond, bank sampling, bank stabilization and river substrate sampling.
- Current lab work includes studies by Cindy Gilmour and Univ. of Waterloo.
- Future proposals include Robert Brent's mesocosm work and Bill Berti's floodplain amendment work.

- Pond: gave description of work at the pond. Results show most significant results in MeHg reductions. Filtered surface water significantly lower in IHg and MeHg on amended side. This year's plan is posted on FTP site in the ROPs folder.
- Gilmour Study: South River has more bioavailable Hg than other sites she has worked on but responds the most favorably to carbon amendments.
 - Decrease in THg and MeHg in pore water and worms
 - Sediment MeHg increases
 - May be due to change in demethylation
 - % MeHg reductions in mesocosms comparable to results in pond.
 - Developing hypothesis to explain increased MeHg concentrations in treated sediments.
- Waterloo....need to look at slides
 - Hg species distribution is different for different samples
 - Most of the Hg is tightly bound to solids, but leachate still contains significant Hg concentration
 - Soils can leach even after 10s of pore water flushes
 - All chars tested were relatively effective in reducing Hg in water, but higher temperature biochars released less undesirable constituents (DOC and sulfate). Cowboy Charcoal brand used for pond pilot because of Waterloo results.
 - Treatment Column Studies
 - Saturated soils from RRM 0.1 were leached and the effluent was treated with Cowboy Charcoal.
 - THg concentrations decreased by 99% (initially reduced from ~15,000 ng/L to ~90 ng/L)
 - Current Work
 - Variably saturated soil columns
 - Testing the effects of alternately wetted and dried soils and sediments on Hg release and MeHg concentrations
 - Simulating rainwater and river stage fluctuations/bank soil inundation
- Next meeting in June
 - Develop short term (2 year) and an outline for a long term plan
 - Implement within an adaptive management framework
 - Updates on field and studies (possibly webmeeting)

Human Exposure Task Team: *Annette Guiseppi-Elie*

- No slides with presentation
- Team has not met in awhile
- Working on communicating the results we have
- Oldest existing task team
- Protective of human health
- Things to resolve this year:
 - Gathering edible animal tissue data and performing human health risk potential from eating these critters. This includes waterfowl, deer, squirrel, muskrat and snapping turtle. We have all data except turtle and are waiting for it. Deer

squirrel and muskrat appear to be very low. Working on fact sheet (probably general and specific) on waterfowl.

- Working up with plan for analyzing consumption of milk and beef from floodplain
- Need to communicate results of newest floodplain and pond data to landowners
 - VDH issued advisory against consuming fish (except stocked trout) from pond in Grottoes Town Park because of study.
- Completing last creel study (by April)
- Communicate results of VDH study. Will probably use newsletter to communicate results.

Communications and Outreach Update: *Mike Liberati, DuPont*

- Newsletter: next issue coming out in June with two articles written by Ralph Stahl.
- Website: Over 8 years old. DuPont is switching carriers and will redesign.
- Bookmarks: All are translated into Spanish and include the following fish: Smallmouth, redbreast sunfish and rainbow trout.
- Wallet cards: Changed back to what you can eat. Translated to Spanish.
- "Should I eat the fish I catch" brochure has been translated and simplified.
- All of these materials on the website.
- Upcoming events:
 - Virginia Flyfishing and Wine Festival April 21-22. SRST not participating this year.
 - Riverfest Saturday April 28. 200 kids from Eastern Virginia will be releasing trout from trout in classroom program.
 - Riverfest Kids Day is Thursday April 26th. Over 230 8th grade students from Waynesboro will be attending. DuPont is Gold Supporter.
 - 1st phase of Greenway now open. Runs from Constitution Park to Loth Spring about 1 mile long. Next phase will run from Constitution Park to North Park and will add 1.2 miles. St Patrick's Day will be Grand Opening event.
 - Promotores Program still active. Joanna Jenson (JMU-Blue Ridge Area Health Education Center) present to talk about activities.
 - Trying to get into Waynesboro Hispanic community.
 - Getting interested groups together in May. Hoping to get more Hispanic involvement in Riverfest.
 - Annual gathering of Promotores weekend of March 17th.
 - The only other Promotores program with environmental outreach is in Tucson, AZ.

Wrap-up, Action Items, Next Meeting: *All*

- Next meeting June 13th
- Jim Dyer suggested open invitation/announcements to all SRST for all task team meetings.
- October 2-3rd Expert Panel meeting
- Don stated he sends out all articles to the SRST that he receives. Cathy Adams has a list of all published research that has resulted from SRST activities and there is a list of articles on the SRST website.