South River Science Team
July 10, 2002 Meeting
DEQ, Harrisonburg

AGENDA

If you are interested in observing or participating in Va. Tech's fish sampling on July 9 or 11, contact Steve Reeser or Don Kain

9:00 - **Welcome / Introductions** - Don

9:15 - **Newsletter** – Mike Liberati

9:30 - **Water Sampling 2002** – Ted Turner

10:00 - ***Corbicul*a** as a Hg monitoring tool in South River – Tom Benzing, JMU

10:15 – Break

10:30 - **Filtrate Analysis** – Bob Luce

10:45 - **Aerial Photos / Mapping** – Bob Luce

11: 15 - **Waynesboro's old landfill** – Mike Sherrier

12:00 - **Lunch**
- **Floodplain Report** – Dick Jensen

1:00 - **Sediment Dating** – Dick / Nancy Grosso

1:30 - **Status of Va Tech Study** – Steve

1:45 - **Publication(s)** – Ralph

2:00 - **October Expert Panel Meeting** – Ralph, Don

2:15 - **Other Discussion, open forum**

2:30 - **Wrap-up, Action items** – Ralph, Don

3:00 - **Adjourn**

MEETING SUMMARY

Welcome / Introductions . Self-introductions were made. Attendees are listed on Attachment 1.

Newsletter – Mike Liberati provided the status of the South River Science Team newsletter. The first issue has been distributed to approximately 600 individuals and organizations. There has been little feedback, but those comments received have been positive. Plans are to publish the newsletter twice per year (May and November). Mike presented a schedule for development of the next issue and outlined the categories of the newsletter. He reminded everyone that photos are needed. Draft articles for the November issue are due August 15. The Presentation folder includes Mike's slides from the meeting.

DEQ Water Sampling 2002 – Ted Turner gave a brief summary of DEQ's ongoing bimonthly clean metals sampling at a series of stations from Waynesboro downstream to the mainstem Shenandoah River. He then presented the details of a proposal for a July 2002 intensive survey in a 1.5-mile stretch of the South River at the downstream (north) end of Waynesboro. This section of river has been noted as an area with increasing mercury levels in fish tissue, relative to the South River near the DuPont site. This survey will involve water column sampling at 0.1-mile intervals near both river banks in an effort to see if notable changes in water quality occur through this length of river. Sampling will occur from a point about 0.35 miles upstream of the 2nd Street bridge to 0.25 miles downstream of the Hopeman Parkway bridge. Grab samples for dissolved and total mercury (clean techniques), TOC and solids will be collected. Continuous recording of pH, temperature, conductivity, and dissolved oxygen will occur during the sampling event, as the team travels upstream (wading and by canoe) through the river. DEQ will also deploy PIMS (Passive Integrative Mercury Samplers) devices at several locations in order to assess "uptake" by a surrogate "organism." Attachment 2 includes a map of the proposed study area.

***Corbicul*a as a Hg monitoring tool in South Rive**r – Tom Benzing gave a brief outline of plans to sample Corbicula (Asiatic clams) from South River and determine mercury levels in their tissue. Tom will develop a proposal, in partnership with Doug Graber-Nuefeld (Eastern Mennonite University), for presentation to the Science Team at the October 2002 meeting. Tom intends to have this project dovetail with other monitoring efforts in the area, including fish tissue, water column, sediments, and PIMS.

Aerial Photos / Mapping – Bob Luce shared a PowerPoint presentation from a local (Linden, VA) company called Environmental Research, Inc (ERI), which specializes in mapping and aerial photo interpretation (refer to Presentation folder). One area of specialization provided by this company is historic interpretations of different uses and activities for pieces of property, based on series of photos taken over time. Landfill operations and dredging activities were identified as land uses that could be monitored with these types of interpretations. Tammy Newcomb informed the group that there is a group at Virginia Tech called the Conservation Management Institute that also does this

type of work. She will send identify a contact and provide the information to Ralph Stahl. The Science Team deferred any action on this issue until a later date.

Filtrate Analysis – Bob Luce presented suggestions for analyzing filtrate (residue in filters from dissolved mercury sampling), in conjunction with sediment sampling. Many of Bob's ideas and suggestions appeared to be worthy of consideration as elements in the DuPont sediment coring proposal. It was agreed that Bob would work closely with Dick Jensen to synthesize their ideas and incorporate them into the sediment coring proposal.

Waynesboro's old landfill – Mike Sherrier provided an update on the former Waynesboro landfill. Anecdotal information had suggested that the site was a former quarry. Mike found no evidence of a quarry at this location and believes the site was a ravine before being used as a landfill. EPA conducted an investigation on the site in 1988, with a focus on leachate collection and runoff. Mike proposes to conduct a field investigation of the site in October 2002. Don Kain agreed to make preliminary contact with Waynesboro officials for site access. Details of the ongoing landfill investigation will be presented at the October Science Team meeting. See Presentation folder for Mike's slides.

Floodplain Report – Dick Jensen gave a presentation on the floodplain mapping project. He is developing an interactive web-type CD-based report, which will be an expansion of the mud mapping report developed earlier this year. The maps will identify areas of sediment deposition, wetlands, and at-risk sites from floodwaters. Once the report is finalized, copies will be provided to Science Team members.

Sediment Dating – Dick presented a conceptual proposal to conduct core sampling in the South River and selected wetland areas. Details of the proposal, including hypotheses and specific questions to be answered are included in the Presentation folder. The plan calls for analyzing cores for mercury, along with dating, in order to determine when contaminated soil was deposited in specific areas. This information may assist the team in determining both the source and fate of material in the sediments. Ralph Stahl pointed out the need to include aspects of Bob Luce's earlier proposal to evaluate sediments through filtrate analysis. Dick agreed to develop a more detailed proposal circulate it among Science Team and expert panel members for comments. Sampling is projected for fall 2002.

Status of Va Tech Study – Greg Murphy provided a 6-month progress report on the fish gut project. The work is on schedule and is going well. Greg anticipates presenting the results of fish stomach contents from spring 2002 collections at the October meeting of the Science Team.

Publication(s) – Ralph Stahl emphasized the need to develop publications in peer-reviewed journals for work already completed on the South River mercury project. He suggested that during the next few months team members begin to assemble and develop topics for papers. Mike Liberati suggested a task team keep this issue moving forward. A preliminary list of task team members was established: Ralph Stahl, Don Kain, Greg Murphy, Larry Mohn, John Green, and Annette Guiseppi-Elie.

October Expert Panel Meeting – Ralph Stahl and Don Kain led a discussion on the October meeting. The Expert Panel members will be attending this meeting. The meeting will occur on October 8 and 9, and will include a field tour of a portion of the river.

Agenda items under consideration include:

- Updated fish tissue results (if available)
- Intensive water sampling and PIMS results
- Mudmapping and floodplain activities
- Va. Tech Fish Gut study update
- Floodplain coring
- *Corbicula* proposal
- TMDLs
- Waynesboro former landfill
- Avifauna in watershed
- Future trust fund monitoring
- Outreach and communications
- Discussions w/ EPA, Region III
- Working hypotheses

Wrap-up, Action items

- Mike L. to assemble newsletter team for next issue
- Contact Don K. or Ted T. to participate in intensive survey
- Ralph S. to explore possibility of having methyl Hg on intensive survey samples
- Dick J. and Bob L. to "combine" proposals for soils/sediments
- Ralph and Don to coordinate w/ Tom B. and Doug G-N re. *Corbicula*
- Tammy N. to explore aerial photo interpretation at Va. Tech
- B. Luce to check w/ conservation service re. low-altitude flights.

Next 2 Meetings

- October 8-9 (w/ expert panel)
- December 10

Attachment 1. Meeting Attendees

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Attachment 2, Proposed study area for water sampling