

South River Science Team

April 6, 2015

Minutes

Monitoring: *Josh Collins, AECOM*

Long-term Monitoring Activities since last meeting:

- Carolina Wrens were captured in July 2015 at 9 locations using mist nets, collection both adults and juveniles. Blood was drawn and analyzed for THg. Results were consistent with past studies.
- Mallard ducks were collected (26) at 9 stations in March 2016. Breast tissue will be analyzed for THg and MeHg.

Short-term Monitoring Activities since last meeting:

- No new data collection
- Working on 2015 Annual report
- 2016 stations TBC pending design/construction schedule

Spring 2016 Schedule:

- April: Clam deployment
- May: Adult fish, Aquatic Eco and STM
- June: Terrestrial Eco and snapping turtles

Summary

- Spring 2016 sampling events are final “Baseline” period
- Continued collaboration with VGIF fish health sampling program
- Reporting Schedule
 - STM – Annual
 - LTM – Every 3 years

Real Time Hg Measurements in Surface Water: *Todd Martin, Integral*

Integral has deployed an optically based chemical monitoring device in the South River at the Forestry Center. The device will stay in the river for one-two months. AECOM will be sampling for calibration and validation, trying to capture at least 6 baseflow events and 1 storm flow event. TSS, POC, DOC, THG, TMeHg, DHg and DMeHg will be collected. The goal is to capture as much variability as possible during the initial deployment.

Outreach: *Mike Liberati, DuPont*

- Factsheet #7 (consuming beef, chicken, etc...) is completed and has been distributed.
- The Remedial Advisory Panel held its third meeting on Monday (4th). They were provided with a tour of bank stabilization and storm water improvement work at Ridgeview Park and also shown

the first draft of some of the “storyboards” being created for communicating with the public. DuPont feels they are providing constructive feedback.

- The Waynesboro Fly Fishing Expo will be held April 23rd and 24th. There will be an SRST table along with the macroinvertebrate tank.
- Riverfest is being held April 30th. DuPont and the SRST will be present with displays. DuPont will also be giving presentation on BMA work in the small presentation tent. The Riverfest Kids Day event will be held on April 21st (rain date April 28th). 7th grade students from Kate Collins Middle School will rotate through 4 stations which include fish, macroinvertebrates, fly tying and storm water management.
- Future outreach will include meetings with City of Waynesboro to educate board supervisors about the BMAs. DuPont also plans on starting to contact private landowners whose riverbanks have been identified as future BMAs.

Promotores de Salud: *Carmen Morreno, PDS*

- Carmen is starting a 5 week Promotores Jr. class at Waynesboro High School with the Spanish Class for Spanish primary speakers. Calvin Jordan will instruct the class about the South River mercury issue on April 14th.
- Recruitment Activities
 - Camp RMH and Health Club start June/July
 - Turner Ashby HS health fair (100+ students contacted)
 - Spotswood HS health fair (will be attending today)
- On the Road Collaborations
 - Looking into after school programs in middle schools. Trying to recruit kids before getting into HS.
- Waynesboro PDS will have meeting in April. 6 previously trained students.
- Carmen has been out and about just getting to know the community!

Creel Survey: *Paul Bugas, DGIF*

DGIF will be conducting creel survey of South River, South Fork Shenandoah and Shenandoah Rivers. DGIF will be hiring 4 wage employees to conduct the survey, ideally with two who speak Spanish. Working with PDS on questionnaire.

BMA Design Update: *Clay Patmont, Anchor*

- About 1000 linear feet of work planed at two sites; Constitution Park and the Waynesboro WWTP.
- Primary banks are banks where removal will occur due to high mercury concentrations or high loading.
- Secondary banks are banks where loading is occurring and stabilization will be used to control loading.
- The two sites are different in terms of steepness of bank, river flow, visibility and infrastructure. Because of this, they will require somewhat different methods of stabilization. Opportunity to demonstrate different stabilization techniques.

ROPs 2016 Updates: *Nancy Grosso, DuPont*

- **Waterloo Biochar Characterization**
 - Leaching of biochars results show some biochars are preferable over others.
 - Digestate seems to work as well as Cowboy Charcoal in removing mercury from water.
 - Distiller's Grain biochar similar to wood-based biochars in terms of sorption
 - Evaluating mixtures of Distiller's Grain and Digestate.
- **Benthic Community Effects of Biochars Proposal (Will Clements)**
 - Will is proposing to do a 40 day field colonization study with 3 treatments to include a control, biochar and washed biochar. This will increase replication and have greater statistical power. Planning for late summer 2016.
- **Dynamic Mercury Cycling Model Update (Reed Harris)**
 - Hoping to complete calibration by the end of April and begin scenario testing.
- **Phase 1 BMA Bank Soil Sampling (Josh Collins)**
 - Collection and analysis complete. Similar trends to other BMAs. THg ranges from non-detect to > 1,400 mg/kg. Will be refining BMA boundaries.
- **JMU XRF Field Validation Study (Robert Brent)**
 - Field measurements and laboratory analysis complete. JMU laboratory analysis pending. Sample variability is greater than measurement variability.
 - Next steps are to spike lab samples and measure, incorporate soil types into evaluation/variability, complete evaluation of data, prepare report and finalize field protocols.
- **Floodplain Amendment Pilot Update (Bill Reese)**
 - Developing plan for field application in non-forested and forested soils. Field application techniques to be tested prior to implementation. Anticipated application in 2016, sampling in 2017.

Training: *Jen Badner, AECOM*

SRST model training needs survey sent to SRST group earlier in the year. 31 members responded. Majority favored training in the summer and to be only ½ day long. Results were split on which models the training should focus and whether to have in-person or web training. Results can be viewed on the presentation slides on the SRST website. Next steps are to establish dates for training modules and to determine location.

Regulatory Update: *Vince Maiden, DEQ*

- DuPont will be supplying a yearly report to DEQ on short term monitoring results. For long term monitoring, DuPont will supply a report every three years, but will also provide a yearly summary for public consumption.
- Finished with baseline data collection.
- Moving forward, will be using a phased approach/adaptive management. The Corrective Measures Work Plan will be submitted after initial Interim Measures completed.
- DuPont asked for memo stating some sort of remedy has started.

Update on Plant Site: *Ron Wesley, AECOM*

- Corrective Measures Study pending agency approval.
- Proposed Remedies
 - SWMU 1 (chemical building and retort area)
 - Soil removal where free Hg found, asphalt cap, ground water monitoring
 - SWMU 4 (waste disposal/incineration area)
 - Soil removal where free Hg found, cap and regrading, ground water monitoring
 - SWMU 7
 - Asphalt Cap (no free Hg found), groundwater monitoring
 - AOC 3 (sewers)
 - Clean-out, re-line, abandon
- Institutional Controls proposed for following areas:
 - SWMU 2 (ash disposal area), SWMU 6 (wastewater treatment), SWMU 17 (Orlon sump), AOC 1 (drum storage pad)
- Ongoing activities: groundwater monitoring, outfall monitoring, mercury inspections

Future SRST Meeting Dates:

- July 26, 27
- October 25, 26
 - Extras for October meeting: Database training, stat model, BMA construction tour are possible