

**DEQ - 1st PCB TAC Meeting for upper tidal James River and Tributaries TMDL Development
Wednesday April 27, 2011 2pm
Maude Langhorne Nelson Memorial Library – Hopewell, VA**

Meeting Summary:

Margaret Smigo, DEQ Piedmont Regional TMDL Coordinator gave introduction. She explained there would be 2 presentations; the first presentation to be given is by Mark Richards, Central Office DEQ Environmental Scientist (and study leader) which will include PCB overview, history, analytical method, etc. The second presentation is to be given by Dr. Jian Shen, who is a VIMS professor and is the contractor for the TMDL study / model. She explained the time allotted for the meeting was 3hrs but a fair amount of time was for discussion/questions. Also, set-up of meeting was meant as a “roundtable discussion” and participants should feel free to interrupt speakers with questions or observations. If necessary the “parking lot” would be used for issues which cannot be resolved within the confines of the meeting. The attendees were asked to introduce themselves and the organization they represent.

In attendance: Margaret Smigo (DEQ), Mark Richards (DEQ), Kelley West (DEQ), Mark Alling (DEQ), Dr. Jian Shen (VIMS), Cheryl Sawyer (Cogentrix), Dana Rieves (Cogentrix), Laura Williams (ESC, LLC), John Newton (Henrico Co.), John Woodburn (Henrico Co.), Lola Guerra (Henrico Co.), Dean Fowler (VDGIF), Amy Ewing (VDGIF), Brian Gavin (Golder Assoc.), Morgan Alsberry (Smurfit), Joe Furr (Smurfit), Ram Panchasara (Chesterfield Co.), Rusty Field (One Env. Group), Catherine Warner (One Env. Group), Patrick Davis (Kinder Morgan), John Bragg (Charles City Co.), Chuck Barnes (Hopewell Cogeneration), Kathryn George (Honeywell-Chesterfield), Scott Wolff (Honeywell-Hopewell), George Verghese (VDH – Hopewell), Charles Leonard (VDH – Crater Health District), Carter Teague (EEE Consulting), Jamie Heisig-Mitchell (HRSD), Mara Burton (HRWTF), Jeanie Grandstaff (HRWTF), Steve Werner (Draper Arden Assoc.), Grace LeRose (City of Richmond), Chuck Fredrickson (James River Assoc.), Mark Bittner (Crater PDC), Ram Gupta (DCR – Richmond), Chris Cornwell (Cape Fear Analytical), Novelle Stokes (SCWWA), AnnMarie Gathright (Environmental Standards), Gina Kelley (Dominion Resources), Tony Nobinger (Phillip Morris), Ashley Miller (Town of Ashland), Steve Spence (Town of Ashland), Kelly Hicks (URS Corp), L. Waverly Smith (DuPont/VMA).

Overview of the handouts provided included the FAQ's by the VDH and ATSDR on the health risks of PCBs, the 2010 Factsheets from DEQ's Integrated Report for the PCB impairments of this study, and the DEQ water column data and station maps (collected 4/09 – 10/10). The handouts, presentations from the meeting, and a meeting summary would be made available on the DEQ website:

<http://www.deq.virginia.gov/tmdl/pcb.html>. If attendees signed in, they would receive notification in the meeting email-recap with the link.

Presentation 1 – Mark Richards (DEQ) *PCB Overview for James River PCB TMDL*

Questions asked during presentation:

Q: How much does method 1668 analysis cost to run a sample?

A: ~\$700-\$1000

Q: is the method A, B, or C, comparable?

A: DEQ will continue to accept all three methods. EPA began promulgating "C" last fall (not aware of status). Versions A and C are more similar to each other than B. B actually has QC acceptance criteria where recoveries greater than 100% are unacceptable. Also, Version C more closely resembles the analytical protocol included in DEQ's guidance.

Q: Some of you data collected was with "A", correct?

A: Yes

Q: Is EPA reviewing method 1668?

A: Yes, EPA developed method 1668, and it has evolved to methods Versions A, B, and C; C is the Version they are currently promulgating.

Q: When your TMDLs are established will they affect permittees?

A: Permittees that have been identified as possible PCB sources will receive a baseline PCB load and a WLA. To reiterate, "No data" does not mean a facility will not receive a WLA. If there are no PCB data from a facility, DEQ will develop an estimated PCB baseline load. Previous studies have shown that estimated loads will be much higher than what is actually in the effluent. We are hoping to get voluntary monitoring data from facilities who were asked to participate to help determine the background loads that can be compared to the WLAs. If the voluntary samples fall below the WQC or screening value, we don't expect to require additional samples, except perhaps, during the permit reissuance period (every 5 years – we don't expect to require yearly sampling). Facilities identified as sources (exceeding the WQC/screening value) based on voluntary monitoring can opt to take additional samples from what is specified in the PCB Guidance document. The resulting WLAs in the TMDL will be BMP based (instead of a numerical WLA). The TMDL Implementation would consist of a Pollution Minimization Plan (PMP) for each facility found to have PCB contamination, in order to reduce/eliminate the PCB contamination.

Q: Has there been any thought given to lab certifications and methods going on. There have been big issues about using approved methods. Will there be issues with the lab-accreditation?

A: DEQ has historically developed TMDLs using non-promulgated methods. All of the labs on the PCB Laboratory list (available on the DEQ website) are accredited thru NELAC

Q: Because this is a voluntary monitoring request, if dischargers do not sample, how will the baseline load be determined for them?

A: DEQ will use their old method (608) and take one-half of the detection limit to develop a baseline condition. That will be an overestimate that will lead to a permit condition that requires low level PCB monitoring (Roanoke PCB project was the example). If the facilities would generate the data then it would make a much better TMDL study. DEQ does not wish to overestimate any facility's PCB contribution.

Q: On the last slide with some sources 99% reduction were needed, is there a limit on how much can be reduced?

A: We can target the significant loads and get reductions. We do not yet know – fully, how we are going to implement this. We are in the early stages of this TMDL and there is still much to be discussed on how best to reduce sources.

Q: Do you anticipate that all permits would include this requirement?

A: If a major municipal facility submitted four samples and they were all fine then it would probably only need to be sampled once every 5 years when the permit renews. I am not clear how EPA will look at that – again there is still much to be discussed as this is not an easy pollutant to mitigate (technology limits). If a facility “screens clean” then we shouldn’t be worrying about it. However, instead of using method 608 it would be 1668 during the permit application renewal process.

Q: We are seeing PCBs everywhere. We are even seeing contamination in our blanks. How is DEQ getting clean samples?

A: We are sampling without intermediate equipment. It’s a problem we are aware of. Some blank contamination will occur, it just depends on how much and what the constituents are comprised of. We are working to address that concern.

Q: I understand there is a guidance memo in the works regarding the QA / QC process, what’s the status on that?

A: It’s in progress; I am hoping to get that done in the next 6 months. It has been delayed but should not cause a delay for the voluntary sampling deadline. We will try to prioritize that.

Q: Is there a point at which you can anticipate additional requirements? At what point (while facilities are reviewing their voluntary PCB data) can we get an idea if we will exceed the WLA?

A: The baseline load will be calculated using the mean PCB concentration and average flow (*we will have to define that in the TMDL). If you do a 12 month average, it will give an approximation of the existing condition. The WLA is calculated using the WQC, design flow * a unit conversion factor (1.38). See slide included at the end of Mark’s presentation for the calculation.

Presentation 2 – Dr. Jian Shen (VIMS) *Overview of Modeling for James River PCB TMDL*

Questions asked during presentation:

Q: Did you say that most of the PCB’s in the river are a result in being suspended from the sediment, and you said you needed to measure the PCB’s in the sediment. Are you taking direct measurements to figure out the diffusion of the suspended PCB’s?

A: There is a seasonal variation; the suspended solids are in the sediment, when you run the carbon model you can find out how much is settling and how much is being suspended, then we can figure that out monthly and hourly. Diffusion is a little easier because it is a physical process so it is easier to detect and you use the model calibration & settling velocity & re-suspension (as related to inorganic sediment) to see how much sediment will be suspended.

Q: Are the models separate or combined into one?

A: There is one model, the “EFDC” model which was developed by John Hamrick a professor at VIMS (mid-1990s). EPA used the model for the nitrification dynamic. Some earlier PCB models used “suspended solids” and not “carbon” – carbon is better to use (we now know) so we will use it for this model. All the sub-models (3 of them) are in one big model run simultaneously. For the estuary you have to use the 3 dimensional model. If anyone wants the model you can have it, its public domain.

Meeting Wrap-up: Margaret thanked the participants for their attendance and time. Additional meetings would be held by her counterpart in the Tidewater Regional Office, Mrs. Jennifer Howell, on May 11th (Elizabeth River TAC at Tidewater Regional Office at 9:30AM) and May 17th (James River lower

tidal TAC at James City/Williamsburg Comm. Center at 10AM). A reminder of this info would be included in the meeting recap email.

Meeting adjourned ~4pm