

**Minutes - James River Chlorophyll *a* Study  
Stakeholder Advisory Group Meeting  
Monday Aug 27, 2012  
VCU Rice Center**

Agenda

- 10:00 Greetings & Introduction (John Kennedy)
- 10:10 Background on James River Chl *a* Criteria (Arthur Butt)
- 10:30 JR Chl *a* Study: Goals, Progress, Upcoming Activity (Paul Bukaveckas)
- 11:30 Q & A
- 12:00 Adjourn

The Stakeholder Advisory Group (SAG) for the study on James River chlorophyll water quality standards met for the first time on 8/27/12. John Kennedy, manager for the Office of Ecology and Infrastructure, greeted the attendees and made introductions. Members were reminded about the Notice of Intended Regulatory Action issued in September 2011 which allowed for an early start of the regulatory amendment process (if deemed necessary at the end of the study) and a waiver from the Governor's Office from the prescribed timelines for the rulemaking process.

The SAG was briefed by Dr. Arthur Butt on the study background. The study was prompted by concerns that the nutrient load allocations for the James River under EPA's Chesapeake Bay Total Maximum Daily Load (TMDL) issued in December 2010 were significantly lower than the loadings originally allocated in 2003 which were expected at the time the standards were adopted. Preliminary estimates for the additional cost to achieve the lower loadings needed to meet the current standards are on the order of \$1-2 billion. The study will reexamine the appropriateness of the current chlorophyll standards as being protective of the aquatic life designated use, whether or not they should be revised, and a sense of the "achievability" of the final standards. The presentation for this portion of the meeting providing detailed background information is located at:

[http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityStandards/JamesRiverChlorophyllStudy/James\\_River\\_chl\\_a\\_Study\\_background\\_for\\_SAG\\_August\\_27\\_2012.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityStandards/JamesRiverChlorophyllStudy/James_River_chl_a_Study_background_for_SAG_August_27_2012.pdf)

Dr. Paul Bukaveckas provided an overview of the study objectives, study design basis, and progress to date. The monitoring and modeling phase of the study are now underway and will take 3 years to complete. Discussions about potential amendments to the chlorophyll standards will start in 2015 and any needed amendments are to be completed by the 2017 reassessment of the Bay TMDL and states' Phase 3 Watershed Implementation Plans. Dr. Bukaveckas also provided the group with a tentative schedule of upcoming Science Advisory Panel (SAP) activities for Fall 2012 which will consist of discussion of chlorophyll *a* criteria and study approaches as well as the results from 2012 data collection activities. There will also be a Spring 2013 meeting to plan for 2013 data collection activities and for discussion of model

development. The presentation for this portion of the meeting providing detailed information is located at:

[http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityStandards/JamesRiverChlorophyllStudy/Bukaveckas\\_SAG\\_Presentation\\_August\\_2012.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityStandards/JamesRiverChlorophyllStudy/Bukaveckas_SAG_Presentation_August_2012.pdf)

Notes on Question & Answer Session.

Q: (EPA) How would multiple initiatives such as the watershed general permit for the Bay TMDL be coordinated with this effort?

A: There would have to be a final decision as to whether or not the existing chlorophyll *a* (CHLa) standard should be revised. If it is necessary to implement additional reductions to meet CHLa, that could affect every point source in the James watershed and possibly exceed technological abilities in some cases. However wastewater treatment facilities are doing better on a concentration basis than anticipated which may be because they are not at full capacity.

Comment: EPA would ask VA to be careful about keeping the important issue of attainability separate from the Water Quality Standard determination. The criteria should be based on what is needed to protect the beneficial uses. There are other means, such as variances, which are available to address attainability or non-attainability. EPA also suggested that they might help in deciding how to assess the final criteria, considering such issues as averaging periods, spatial and temporal measurements, weekly or monthly monitoring, etc. The method used to derive the criteria will determine how it should be assessed.

Q: How would you connect the local (James River) model to the Bay model?

A: That has yet to be determined due to the early stage of the study though there are individuals from the Bay modeling lab working with the James River CHLa study Science Advisory Panel (SAP).

Q: What is the status of availability of data generated for the study?

A: DEQ is the central repository for all data.

Q: Is there any intent to publish the data?

A: Principal investigators will most likely be publishing some of the results and some data would be made available on DEQ web pages as well as providing a technical compendium similar to Bay TMDL document.

Q: Will there be an independent scientific review of the results?

A: The members of the Science Advisory Panel include some of the best experts available who are familiar with the James River and nutrient issues. If the study indicates a criteria change, it is expected EPA will provide scientific/peer review during approval of regulation amendments. Time restraints due to deadlines outlined in the Chesapeake Bay TMDL schedule may not allow additional peer review. Funding is also a constraint, in addition to timing.

Comment: EPA offers the potential of funding a peer review.

Comment: James River Association encourages DEQ to pursue peer review. Clarification is needed on whether single approach or multiple approaches to the study will be used. Also, does the reference approach only consider James River data?

Bukaveckas Response: Regarding study approaches....SAP doesn't know at this time.

Regarding reference approach....The current CHLa criteria are based on an approach intended to protect a balanced community and they are based on reference conditions that included data from outside the James River. It has not been determined yet if the approach currently reevaluating the criteria will use data outside of the James.

#### Attendees

<b>NAME</b>	<b>AFFILIATION</b>
Chris Moore	Chesapeake Bay Foundation
Ken Roller	Dominion Power
Richard Batiuk	EPA Ches. Bay Program
Bill Street	James River Association
Jamie Brunkow	James River Association
Bob Croonenbergh	VA Dept. Health
Keandra Odukoya	VA Dept. Health
Jim Pletl	Hampton Roads Sanitation District
Christian Volk	American Water - VA
Scott Wolff	VA Manufacturers Association (Honeywell Corp.)
Timothy Morse	VA Manufacturers Association (Mead-WestVaCo)
Mark Bennett	US Geological Survey
Paul Bukaveckas	VA Commonwealth University
Bob Greenlee	VA Dept. Game & Inland Fisheries
Dean Fowler	VA Dept. Game & Inland Fisheries
Robert Steidel	City of Richmond
Grace Lerosé	City of Richmond
Arthur Butt	Dept. Environmental Quality
Melanie Davenport	Dept. Environmental Quality
John Kennedy	Dept. Environmental Quality
Elizabeth McKercher	Dept. Environmental Quality
Alex Barron	Dept. Environmental Quality
David Whitehurst	Dept. Environmental Quality
Anne Schlegel	Dept. Environmental Quality