



Modeling Workgroup Meeting

April 4, 2017

CBPO Conference Room - The Fish Shack
410 Severn Avenue Annapolis, MD 21403

For Remote Access:

Adobe Connect: <https://epawebconferencing.acms.com/modeling> (enter as guest)

Conference Line: (866)-299-3188 **Code:** 410-267-5731

Event webpage: <http://www.chesapeakebay.net/calendar/event/24719/>

- 10:00 Announcements and Amendments to the Agenda – Dave Montali, WVDEP and Lee Currey, MDE**
- 10:05 Insights and Directions from the March 1 PSC Meeting – Lee Currey, MDE and Dave Montali, WVDEP**
Insights from the PSC meeting on the direction the 2017 Midpoint Assessment could take and the timing of related support analyses needed from the Modeling Workgroup on Conowingo infill and climate change influence on Chesapeake water quality will be discussed
- 10:15 Modeling Workgroup Schedule Update – Lew Linker, EPA-CBPO**
An updated Phase 6 development schedule, with major milestones getting to the final WIP targets in December 2017, will be presented. As of April 1 all model calibration inputs are final and the final calibration has begun.
- 10:30 Phase 6 Fatal Flaw Review Briefing – Dave Montali, WVDEP and Gary Shenk, USGS-CBPO**
The final fatal flaw review process which was developed through thorough discussions among the Modeling Workgroup, WQGIT, and the WQGIT workgroups will be presented.
- 10:50 Update on WEP and the History of Soil P Andrew Sommerlot, UMCES**
Application of Phase 6 changes to accommodate Water Extractable Phosphorus (WEP) sensitivity as well as the combined use of APLE and observed data to derive a history of soil P for each land use and county will be presented
- 11:10 New Approaches In Coastal Plain Groundwater Lag Estimates – Gopal Bhatt, Penn State and Andrew Sommerlot, UMCES**
Expanding on available Eastern Shore estimates of groundwater age, an approach was developed to make the best use of available information in order to extend the groundwater lag estimates to the entire Coastal Plain.

11:50 Progress in the Development of the Climate Change Assessment – Richard Tian, UMCES and Ping Wang, VIMS

A scenario of estimated 2025 WIP loads from watershed under climate change hydrology combined with estimated 2025 sea level rise conditions will be discussed.

12:30 LUNCH

1:30 Fractions of G1/G2/G3 organics relative to flow in the Conowingo – Qian Zhang, UMCES

At the February 14 Modeling Workgroup meeting key decisions were made on the simulation of the Conowingo. The remaining work was to generate equations relating the fractions of G1, G2, and G3 organics to flow. Qian will present proposed model equations that match HDR model estimates.

1:40 Process for Regional Factor Application to Phase 6 – Gary Shenk, USGS

The suggested approach to evaluating if regional factors will be needed in Phase 6 and the information the Workgroup can use to evaluate whether or not to apply regional factors will be discussed.

2:10 Chester River Shallow Water Model – Joseph Zhang and Harry Wang, VIMS

Joseph and Harry will present the findings of a shallow water modeling project that applied the unstructured-grid model SCHISM (Semi-implicit Cross-scale Hydroscience Integrated System Model). The flexible vertical grid structure of SCHISM was successful in the simulation of a major body of hypoxic bottom water in sill at the mouth of the Chester River. In addition, the application of the wave submodel was of significant value for the correct simulation of observed TSS concentrations in shallow waters. Finally, the analysis elucidated reasons for the persistent high blue-green algae chlorophyll concentrations found in the tidal fresh summer headwaters of the Chester,

2:40 ADJOURN