



Modeling Quarterly Review Meeting **Watershed Modeling**

July 21, 2015

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

For Remote Access:

Adobe Connect: <https://epa.connectsolutions.com/modeling/> (enter as guest)

Conference Bridge: (866)-299-3188 code 410-267-5731#

Event webpage: <http://www.chesapeakebay.net/calendar/event/21917>

**10:00 Announcements and Amendments to the Agenda – Dave Montali, WVDEP-
Lee Currey, MDE**

**10:05 Review of Modeling Workgroup 2015-2017 Activities – Lee Currey, MDE -
Dave Montali, WVDEP**

The Modeling Workgroup activities from the last two quarters of 2015 to the close of 2017, and how they're integrated with WQGIT, MB, PSC, and STAC activities and decisions, will be discussed.

10:40 Phase 6 Watershed Model Schedule Update – Gary Shenk, USGS

Gary will present a complete overall picture of the Phase 6 development schedule and will introduce the recent Phase 6 progress.

11:00 Phase 6 Development Progress – Gopal Bhatt, Penn State

Gopal will present progress on the July version of the Phase 6 prototype. This version includes all elements of the updated Phase 6 Watershed Model including approved Phase 6 land segmentation, latest Phase 6 land use, nutrient export targets, and loading sensitivities, lag times using rSAS and UNEC, and incorporation of SPARROW land-to-water (LTW) variances and stream-to-river (STR) factors.

12:00 LUNCH

**1:00 Agriculture Land Use Loading Rates – Tom Jordan, SERC – Gene Yagow,
VA Tech**

Tom and Gene have been working with the Ag Land Use Loading Rate Review steering committee (formerly known as the Ag Land Use Loading Rate Review Subgroup) to refine the relative loading targets for the Phase 6 agricultural land uses. The Modeling WG has been asked to review the progress and current findings of this group.

1:30 Phase 6 Model Land Use – Peter Claggett, USGS

Peter will describe the progress made in development of the Phase 6 Model land use classifications that will be developed for the Phase 6 prototype model in October.

- 2:00 Final Phase 6 Land Use Targets – Olivia Devereux, Devereux Consulting**
Olivia will review the land use loading rates used in the July version of the Phase 6 Model.
- 2:30 Sensitivity to Phosphorus Inputs – Guido Yactayo, UMCES**
Guido will present initial recommendations for the response of phosphorus export to changes in input nutrient loads and storages derived from APLE phosphorus sensitivity analysis as well as multiple watershed
- 2:50 Chester River Shallow Water Multiple Models – Jeremy Testa, UMCES**
Jeremy will describe progress in the development of a fine-scale simulation model of the tidal Chester River and its shallow water.
- 3:30 ADJOURN**



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10:00 Announcements and Amendments to the Agenda – Lee Currey, MDE - Dave Montali, WVDEP

10:05 Full Representation of Diagenesis in WQSTM Sediments and Water Column – Carl Cerco, U.S. CoE ERDC

Carl will describe progress in the calibration of the WQSTM mainstem using full representation of all of the G1 (labile), G2 (refractory), and G3 (inert) organic fractions in the water column to match the same G series in the sediment.

11:00 Refinements to the WQSTM Shallow Water Simulation – Carl Cerco, U.S. CoE ERDC

Progress in developing an improved representation of shallow water in the Water Quality and Sediment Transport Model (WQSTM) will be presented.

12:00 LUNCH

1:00 Loss of Coastal Marshes to Sea Level Rise – Molly Mitchell, VIMS

Molly Mitchell, of the VIMS Center for Coastal Resources Management will describe a survey and analysis of wetland loss due to sea level rise in the Chesapeake.

1:20 Loss of Coastal Marshes to Sea Level Rise – Jeff Cornwell, UMCES

Jeff Cornwell will describe planned work in laboratory experiments to analyze composition and reactivity of organic nutrient material associated with marsh erosion and loss due to sea level rise

1:40 Wetlands as a Phase 6 Land Use – TBD

The Wetlands Expert Panel will present progress on working towards a consensus on recommended wetland types for application in the Phase 6 Model as well as methods for determining their loading rates.

2:10 ADJOURN