



## **Modeling Workgroup Quarterly Review**

July 16, 2019

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

### **Event webpage:**

[https://www.chesapeakebay.net/what/event/july\\_modeling\\_wg\\_inperson\\_meeting](https://www.chesapeakebay.net/what/event/july_modeling_wg_inperson_meeting)

### **For Remote Access:**

**Zoom Link:** <https://zoom.us/j/766174184>

**Phone number:** 929-205-6099 **Meeting ID:** 766-174-184

To enter the webinar, please open the webinar link first

**10:00 Announcements and Amendments to the Agenda – Dave Montali, Tetra Tech and Mark Bennett, USGS**

**10:05 Phase 6 Climate Change Model Development – Gary Shenk, USGS-CBPO**  
Gary will present an overall plan and schedule for the 2019 model development of the Phase 6 simulation of future climate risk in the Chesapeake watershed and tidal Bay. The presentations today will have an associated request for approval by the Modeling Workgroup. The material planned for review in the October Quarterly will be also be outlined.

**10:40 Simulation of Precipitation and Other Watershed Processes – Gary Shenk, USGS-CBPO**  
The approach taken for meteorology and precipitation (Section 2) land use (Section 3.2) agricultural inputs (Section 3.3) non-CSO direct loads (Section 3.4.2) CO<sub>2</sub> stomatal resistance (Section 4.1) deterministic simulation of hydrology and sediment (Section 4.2.3) and groundwater lag (Section 4.7.3) will be reviewed.

**11:40 Simulation of CSO loads Under Future Climate Hydrology – Isabella Bertani, UMCES**  
The simulation of combined sewer overflow (CSO) loads under future climate hydrologies (Section 3.4.1) will be discussed and reviewed.

**12:00 LUNCH**

**1:00 Simulation of Sea Level Rise, Ocean Boundary, and Other Estuarine Processes – Richard Tian, UMCES**  
The simulation of sea level rise (Section 5.1.3) ocean boundary, (Section 5.1.4) wind (Section 5.1.2) and expansion of algal growth and respiration curves (Section 5.2) will be reviewed.

**2:00 ADJOURN**



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- 10:00 Announcements and Amendments to the Agenda – Mark Bennett, USGS and Dave Montali, Tetra Tech**
- 10:05 Impacts of Sea Level Rise on Chesapeake Hypoxia: A Multiple Model Intercomparison Project – Pierre St-Laurent, VIMS**  
Progress made in assessing the influence of sea level rise on Chesapeake hypoxia through a multiple model intercomparison project will be presented
- 10:50 Analysis of Nutrient Limitation Changes in the Bay – Qian Zhang, UMCES**  
Qian will describe an analysis of observed nutrient concentrations in the Chesapeake that estimates changing nutrient limitation patterns in the Bay with the ongoing nutrient reductions of the Watershed Implementation Plans.
- 11:20 Scenario Optimization Tool for CAST – Daniel Kaufman, CRC**  
Danny will provide an overview of the ongoing development and improvement of a CAST BMP optimization tool. Strategies for expanding the set of BMPs included in the current Beta-1 optimization system will be described, along with online tool updates to a second Beta version planned for October.
- 12:00 Preliminary Analyses on Spatial and Climatic Factors Influencing Nitrogen Speciation Across the Chesapeake Bay Watershed – Isabella Bertani, UMCES**  
Overview of preliminary results on the analysis of WRTDS data to understand Nitrogen speciation patterns across the watershed as a function of climatic, geomorphological and land use factors.
- 12:20 Conowingo Pilot Project – Scott McLaughlin and Deni Chambers, Northgate Environmental Management, Inc.**  
Scott and Deni will provide an update of progress on the Conowingo Pilot Project including development of a sediment sampling and analysis plan in the Conowingo Reservoir.
- 12:30 ADJOURN**