



## Modeling Workgroup Conference Call May 21, 2020

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

### Event webpage:

[https://www.chesapeakebay.net/what/event/may\\_2020\\_modeling\\_workgroup\\_conference\\_call](https://www.chesapeakebay.net/what/event/may_2020_modeling_workgroup_conference_call)

### For Remote Access:

Zoom Link: <https://zoom.us/j/569368345>

Phone number: 929-205-6099 Meeting ID: 569-368-345

**Meeting Password: 750955**

To enter the webinar, please open the webinar link first

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

**10:05 Progress in Open-Water DO Analysis using Shallow Water Data – Breck Sullivan, CRC; Rebecca Murphy, UMCES; and Jeni Keisman, USGS**  
An update on the trend analysis of open-water DO and temperature, focused on the shallow water monitoring data, will be presented.

**10:50 Progress in Management Actions Responding to CBP Climate Change Risk – Lew Linker, EPA-CBPO**  
Progress in adapting stormwater and agricultural BMPs to future climate hydrology and temperatures will be outlined. The upcoming joint Climate Resiliency, Stormwater Workgroup, and Modeling Workgroup on current and future Intensity, Duration, and Frequency (IDF) curve development for the entire Chesapeake watershed will be discussed.

**10:55 Update on STAC's Shallow Water Technical Synthesis – Jeremy Testa, UMCES**  
A STAC Science Synthesis Project is underway that will provide insights into shallow water dissolved oxygen (DO) under climate change conditions with respect to attainment of suitable habitat for fish and invertebrates. Open-Water DO nonattainment in shallow water and controls on oxygen dynamics in shallow water habitat types is being investigated from several avenues using observed data, research, and modeling tools.

**11:25 Update on STAC's BMP Technical Synthesis – Emily Bock and Zach Easton, Virginia Tech**  
Progress will be described on a STAC Science Synthesis Project *A Systematic Review of Chesapeake Bay Climate Change Impacts and Uncertainty: Watershed Processes, Pollutant Delivery, and BMP Performance*. The technical synthesis is designed to answer three specific questions:  
1. How do climate change and variability affect nutrient/sediment cycling in the watershed?

2. How do climate change and variability affect BMP performance?
3. Which BMPs will likely result in the best water quality outcomes under climate uncertainty?"

**11:55 Influence of SAV on Chesapeake Nutrients and DO – Carl Cerco, Attain Inc. and Richard Tian, UMCES**

Analysis of the 2017 WQSTM estimated inorganic and organic nutrients from flux-in and flux-out of SAV and the implications for Tidal water dissolved oxygen will be discussed.

**12:30 BREAK**

**12:45 Application of a Habitat Volume Visualization for Key Bay Model Scenarios – Zhaoying Wei, UMCES**

Application of a habitat volume visualization tool for striped bass and blue crab to key scenarios of the WQSTM will be presented. Results of blue crab and striped bass habitat volume under the scenarios of current conditions, No Action, WIP3 and others will be discussed.

**1:15 Collaborative Work on the CBP Fine-Scale Hydrology Model – John Brakebill and Scott Ator, USGS**

Progress on the CBP Fine-Scale Hydrology Model by utilizing enhancements to NHDplus data, specifically the addition/removal events, and diversions, as well as other progress will be discussed.

**1:45 AEIOU WS presentation – Lisa Wainger, UMCES and Gary Shenk, USGS-CBPO**

In keeping with STAC's and the Management Board's new workshop communication method, Lisa Wainger and Gary Shenk, the co-chairs of AEIOU workshop, will deliver a presentation on the recently released STAC workshop report on nutrient speciation and its possible utility and application for TMDL accounting. In general, inorganic nutrient species have a greater effect on dissolved oxygen than organics so that management actions have higher reductions of inorganic nutrient species could be given greater credit, resulting in cost effective CBP management.

**2:15 Progress with CBP Optimization – Danny Kaufman, CRC**

Progress on the optimization work will be described.

**2:30 ADJOURN**