



Modeling Workgroup Meeting

September 11, 2018

CBPO Conference Room - The Fish Shack

For Remote Access:

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

Conference Line: 202-991-0477 Code: 9037008

Event webpage:

https://www.chesapeakebay.net/what/event/august_2018_modeling_workgoup_conference_call1

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

10:05 Model Team Activities – Lew Linker, EPA-CBPO

Gary will describe the Modeling Team tasks over the last quarter and the upcoming tasks including those in support of WIP planning targets, the climate change assessment, model documentation, support for James River chlorophyll modeling, optimization, and more.

10:15 Update on the 2025, 2035, 2045, and 2050 Phase 6 Climate Change Assessment – Gopal Bhatt, Penn State and Lew Linker, EPA-CBPO

Early work on the 2019 Assessment of Climate Change in the Chesapeake watershed will be presented along with updated December 2017 Assessment results. Since the December 2017 presentation of the estimated influence of climate change, an input processing error in the temperature was found and corrected. It primarily impacted the HSPF snow melt subroutine. The revised result has higher estimated watershed particulate nutrients and a decrease in dissolved inorganic loads for the 2025 scenario. For the 2019 Assessment, the watershed loads for the 2025, 2035, 2045, and 2055 will be presented.

Decision requested [1]: What mix of observational trends and ensemble climate change model inputs should be used for the delta method for 2035 and 2045?

Decision requested [2]: In the December 2017 estimates there were high nitrate loads that motivated a “reframing” of the 2025 climate change estimated load into a “generalized” watershed load. With the current 2025 climate change scenario loads what is the recommended approach for characterizing the estimated loads under climate change conditions?

11:00 Update on the 2025 and 2050 Bay Climate Change Assessment – Richard Tian, UMCES and Carl Cerco, Attain

Early work on the 2019 Assessment of Climate Change in the Chesapeake tidal Bay will be presented. Since the December 2017 estimates of the influence climate change has on the estuarine hypoxia an error in the 1991 to 1995 surface temperature delta inputs has been fixed which has the overall effect of reducing temperature and hypoxia in those years. The estimates of hypoxia and water quality standard nonattainment for estimated future climate risk in 2025 and 2050 will be presented.

11:45 Update on Scenario Optimization Tool for CAST – Daniel Kaufman, CRC

Danny will provide an update of the ongoing development of an optimization tool for scenarios run in Phase 6 CAST. The developmental steps anticipated for a roll out of the first-cut, preliminary *Beta 1* Phase of CAST Optimization in the first quarter of 2019 will be discussed as well as the anticipated refinements to be made along with subsequent *beta* releases in the 2019 year.

12:15 Adjourn