Bay Oxygen Research Group (BORG)

Monday, August 18, 2025
12:00 PM – 1:30 PM

Join the meeting via Microsoft Teams.
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Meeting Materials Link
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AGENDA

12:00 PM **Introductions/announcements –** *Peter Tango (USGS), Chair*

12:05 PM **4-dimensional (4-D) Interpolator Development Overview: Recent Updates –** *Breck Sullivan (USGS)*

12:25 PM **Segment Interpolation Regions –** *Rebecca Murphy (UMCES)*

For the 4D spatial-temporal interpolator being developed for use in Chesapeake Bay tidal waters, one part of the interpolation process involves fitting Generalized Additive Models (GAMs) to dissolved oxygen (DO) concentrations over time by region. The GAM process involves knowing the location, depth, time, and day of each DO observation. To conduct the GAM portion of the process as accurately to the data as possible, early testing showed that spatially limiting the data used to fit each GAM to water with similar conditions was beneficial. Therefore, our approach aimed to create segment interpolation regions that support robust DO interpolations with the right amount of data to effectively fit the GAM in target segment assessments.

Evaluation of these regions will continue as we generate GAM daily estimates on the interpolation grid using all high frequency data and combine the hourly estimates. Feedback is welcome on these groups as well as what information would be helpful to understand them. For background information, reference this document which was shared with the group in July.

1:00 PM **Beginning of Addressing Stakeholder Questions about the 4-d Interpolator**

1:30 PM **Adjourn**