# Chesapeake Bay Program Hypoxia Collaborative Meeting #3

**Tuesday, August 31 · 10:00am – 12:00pm**

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**Attendance:**

- *Peter Tango (USGS)*
- *Bruce Vogt (NOAA)*
- *Doug Austin (CBP)*
- *Aaron Bever (AQEA)*
- *Steve Hummel (VDEQ)*
- *David Scheurer (NOAA)*
- *Jay Lazar (NOAA)*
- *Durga Ghosh (EPA)*
- *Cindy Johnson (VDEQ)*
- *Larry Sanford (UMCES)*
- *Marjy Friedrichs (VIMS)*
- *Jeremy Testa (UMCES)*
- *Amanda Shaver (VDEQ)*
- *Breck Sullivan (CRC/EPA)*

**Action Items:**

- *Justin Shapiro (CRC/NOAA) will reach out to Dan Dauer to access hypoxia studies and ensure attachments are distributed to this team.*
- *NCBO and Justin Shapiro will reach out to Durga Ghosh (CBP/EPA) and Doug Moyer to discuss QA protocols in more detail.*
- *Justin will send around a copy of the completed profiler permits for this upcoming fall deployment.*

**Update on NCBO Deployment** *(Jay Lazar, NCBO: 10 minutes)*

- At our previous meeting, the group selected CB4.3W as the second location to supplement CB4.3E
- NCBO will provide an update on scheduled deployment, permitting, and any other necessary actions

- *The permits with the Coast Guard are complete. Justin will send around a copy with these minutes.*
- *CB4.3E was moved 200 meters west, as it was originally in the deepest part of the channel (moved at the Coast Guard's request).*
- *NCBO is hoping to get the profilers in the water in the next month. This would provide two months of in-water data for the season. (October and November).*

*Group Discussion:*

- *Peter Tango (USGS): Are these permits renewed on an annual basis? When would we need to start planning for a spring deployment?*
  - *Jay Lazar (NOAA) will check on this. Assumes next deployment will alter positions, so new permits would be necessary this winter. Jay confirms that new locations for a spring deployment would require new permits.*
- *Jeremy Testa (UMCES): Is there a reason we are putting profilers out this year at all? Why not wait until spring?*
  - *Jay responds by saying that from a data handling/administrative standpoint, there is a lot of value in practicing a deployment and gaining lessons learned.*
- *Larry Sanford (UMCES): The chosen locations sound interesting. You may miss fall overturn, but there are still some valuable fall dynamics that will be captured.*
- *Bruce Vogt (NOAA): Important to have fall deployment because this team has committed to capturing cost/OM estimates, which will be learned through this fall pilot. Also worth connecting with Will Parsons from the Bay Program videography team to coordinate any communications/outreach efforts.*

**Actions in the Short Term** (*Peter Tango, USGS and Bruce Vogt, NCBO: 30 minutes*)

- Establishing a proposed sampling design (to best gather information for PSC review)
  - *Peter will provide a short update on conversations with other workgroups/teams surrounding sampling design*
  - *Why design is important now:*
    - *Potential to put ideas forward for sampling design with GIT-funding. The Fish Habitat ACtion Team and the 4-D Interpolation Team leaned towards addressing this next summer. What can we do to bridge the time frame (next 9 months) between now and funding opportunities that will arise next summer/fall?*
    - *Bruce adds that a short-term decision will be to decide where a spring deployment will take place? Same locations?*
    - *Management and technical input to ensure locations garner value for stakeholders?*
    - *How do we monitor hypoxic shape change through time and space?*

        - *Do we need high frequency bottom monitoring at all CBP stations to track hypoxic water movement? How many stations are needed to guide interpolator development?*
        - *Would this team support a small GIT-funded study to get us through to next summer? What infrastructure do we need to pursue funding?*

*<u>Group Discussion:</u>*

- *Aaron Bever (AQEA): It's reasonable to work on a "moving forward" sampling design. If we wait until next year without planning, we will most likely end up in similar locations. Next steps to determining where instruments go should be based on examining 2-4 mg/l areas.*
- *Jeremy Testa (UMCES): Since we are testing these locations in the fall, it could make sense to use the same locations for the next year (to get a full picture of this study area). Can this work help us reach the final goal - is the restoration effort working?*
    - *Marjy Friedrichs (VIMS): Following on Jeremy's comments, this will help refine our model and tell us if the restoration effort is working. (any location will help the model). Also backs up Jeremy's point to go back to the same locations (lots of interannual variability).*
    - *Peter Tango (USGS): We have never been able to respond to short-term criteria standards. This high resolution monitoring helps with that and with key fish habitat information.*
- *Larry Sanford (UMCES): Agrees with leaving these profilers in the same location for a full season. The CBP model may not integrate hourly information well. Data will be very important to verify a new model (Can it properly capture high frequency variability).*
- *Aaron Bever: RE hypothetical locations, uncertainty tended to exist going up the Potomac. More valuable to go up the tributaries as opposed to complete mainstem accuracy. What is the tradeoff between better understanding mainstream or spreading our resources to key tributaries?*

**Actions in the Long Term: Establishing a Timeline** (*Peter Tango and Bruce Vogt,: 15 minutes*)

- Developing a QAQC plan
    - *NCBO will coordinate with Durga Ghosh on a QAPP, operating under the EPA framework to ensure data can be used to the broadest extent possible.*
- Cost estimates for operation and maintenance
    - *NCBO will track costs of current deployment*