

## Brainstorming/Topic Organization for Future CAP Meetings

March 9, 2026

### DISCUSSION TOPICS AND DECISIONS

1. Continuous Monitoring Data Integrity
  - a. Consider QAPPs
  - b. How to address data gaps?
  - c. Evaluate VIMS QA/QC procedures for adoption Baywide?
  - d. When should these decisions be made?
  
2. General Dissolved Oxygen Assessment Methodology
  - a. Timeline for establishing methods
  - b. Minimum sample size
    - i. 10 – Virginia Data Explorer analysis
    - ii. Consider a portion that must be bottom measurements of a DU boundary
    - iii. VA uses a minimum sample size of 2 for other parameters
    - iv. No existing scientific or policy requirements for a year's worth of data needed
    - v. Be aware of 'all available data' requirement when making 303d decisions
  - c. Spatial distribution of data within assessed Bay segment
    - i. Leah's slides as a reference here?
    - ii. Sampling Design insights
    - iii. Each DU should be monitored, but most segments won't have this available due to resource limitations.
  
3. Instantaneous Minimum DO Criterion
  - a. Definition = 1 hour
    - i. Samples should be considered independent when taken 1 hour apart.
    - ii. More frequent sampling should be averaged over the hour.
  - b. Exceedance rate
    - i. Deep Channel currently assessed using 3D Interpolator
    - ii. 10%
    - iii. 1 in 3 years
    - iv. Should this change based on data type?
      1. VA uses number of monitored days when considering continuous monitoring data. This is to avoid a large denominator using hours.
      2. A bad day is defined as any single exceedance throughout the day.
  
4. 1-day Mean DO Criterion
  - a. Definition

- i. Distinct 24 hour periods or overlapping?
  - b. Exceedance Rate
    - i. 10% similar to 30-day Mean DO Criterion?
- 5. 7-day Mean DO Criterion
  - a. Definition
    - i. Rolling vs static periods
    - ii. Sunday to Saturday, etc
  - b. Exceedance Rate
    - i. 10% similar to 30-day Mean DO Criterion?
- 6. 30-day Mean DO criterion \*potentially start here as a framework for other criteria\*
  - a. Definition
  - b. Exceedance Rate
    - i. 10% CFD for Open Water
    - ii. Bio-reference CFD for Deep Water
- 7. Identifying and assessing tidal blackwaters
  - a. Develop standard methods/approach Baywide
    - i. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P1001WB8.PDF?Dockkey=P1001WB8.PDF>
    - ii. VA has a technical support document drafted for Chickahominy segment reliant on ConMon data in the segment.
  - b. Timeline for establishing these methods
- 8. SAV/WC Assessment
  - a. Determine where SWSAV Use applies
  - b. SAV measurements only taken within those boundaries or are we considering all SAV growth in a segment?
    - i. VA WQS does not specify where use applies. Tish to review 2004 CB designated use documents.
  - c. Review as a group assessment guidance and methodology laid out in technical addendums
    - i. Determine what is specifically laid out (criteria, assessment windows, minimum requirement for assessment determination)
  - d. Clarify SAV + WCA combined assessment
    - i. Reviewed with David Parrish (VIMS), consensus is that the language is not very clear and could be updated (SAV 0-2m + WCA  $\geq$  WCA goal)
    - ii. Can MD and VA agree to a consistent assessment approach?
  - e. Timeline for revisiting these methods

## ANALYSIS NEEDS

1. Walk through of how 4D interpolator transforms data
  - i. It would be good to visualize this assessment also for better understanding (i.e., have a color coded map showing DO over time).
2. Need a way to validate the 4-D Interpolator:
  - a. John Harcum mentioned using a dataset that was previously run through the 3-D interpolator and see what results are given for criteria currently assessed. We talked about choosing segments that are known good or poor performers.
  - b. MD would like to compare the results of running the Fishing Bay data through both the 3D and 4D Interpolators to compare results and to what we know from our intensive sampling of this Bay trib.
3. Would like to explore how the CFD works with results from 4-D interpolator
  - a. VA is unsure about seeing results of assessments before making decisions on how we should develop assessment methodologies.
4. Timeline for testing the 4-D Interpolator
5. Explore alternative assessment methods once data/assessment decision rules are final while development of 4-D interpolator is ongoing.
  - a. Timeline – 2026?

## WORK PRODUCTS TO BE PRODUCED

1. Blue Type Document – Chesapeake Bay and Tidal Tributaries Assessment Methodology for the dissolved oxygen and water clarity water quality criteria
  - a. Criteria refinement – decimal places?
  - b. These documents take time to review and publish.
2. White papers/procedure documents published on the CAP Workgroup website?
  - a. Who needs to review? STAR? CWGT? STAC? PSC?