



Criteria Assessment Protocol Workgroup

Conference Call
Wednesday, October 29, 2014
11:00AM – 12:00PM

Meeting Webpage:

<http://www.chesapeakebay.net/S=0/calendar/event/22188/>

Purpose: To discuss and receive feedback on four areas of interest in the draft Criteria Assessment Protocols Technical Addendum (CAP Tech Addendum) to finalize the draft for formal review by the Chesapeake Bay Program Scientific Technical Advisory Committee.

MINUTES

Welcome, Introductions, and Announcements – *Peter Tango (USGS/CBPO)*

- Peter Tango recently visited the EPA headquarters to review the CAP Tech Addendum with our EPA colleagues. The draft presented at this meeting reflects their feedback.

Highlighted Areas of Interest in the CAP Tech Addendum

For Reference:

[DRAFT CAP Tech Addendum](#)

[DRAFT CAP Tech Addendum Appendices](#)

Peter [presented](#) four items from this draft of the Technical Addendum up for discussion by the Workgroup. The four items include:

1. The interim use of model based volumes in filling gaps in MD 303d listing assessments for the PAXTF and ANATF-MD segments.
2. Open water Designated Use: options for boundary criteria to sub-segment the use for dissolved oxygen assessment.
3. Decision rule for Continuous Monitors for the Instantaneous minimum attainment measures.
4. Umbrella Criterion application approach

Below, each item is discussed.

1. The interim use of model based volumes in filling gaps in MD 303d listing assessments for the PAXTF and ANATF-MD segments.

Background

The three tidal segments: Western Branch Patuxent River Tidal Fresh, Anacostia Tidal Fresh MD, Patuxent Tidal Fresh are missing bathymetry data for the purposes of assessing towards 303d listing of impaired or non-impaired waters. These areas lack some or are devoid of appropriate bathymetry for accurate estimates of volume. However, the Bay model that is used for TMDL scenarios has volumes in place for these segments. We propose documenting the model volumes in the addendum as interim volume estimates to be used in reporting on the 303d lists for these segments.

Conclusion

CAP WG agrees to publish interim volumes based on the Chesapeake Bay model estimates of volume for the Patuxent Tidal Fresh segment and the Anacostia MD Tidal Fresh segments.

2. Open water Designated Use: options for boundary criteria to sub-segment the use for dissolved oxygen assessment.

Background

The revised chapter on sub-segmentation options for the open water designated use describes a 2-zone option and a 3 zone option.

The 2 zone option is supported by:

- Nearshore offshore comparisons with significantly different results at short durations (i.e. Instantaneous minimum)

The 3 zone option is supported by:

- USEPA 2003 305b guidance for monitoring in estuaries: open water, sheltered bays, and highly sheltered embayments
- USEPA 305b guidance as a basis for non-standards assessments
- Boyton et al. 2014 which described a gradient in DO violations from sites located near open water, mainstem tributaries, and tributaries of tributaries
- Caffrey 2004 who notes a similar gradient in DO behavior with position in an estuary

Conclusion

The CAP Workgroup agrees on making a decision on having either 1) options available for a 2-zone approach and a 3-zone approach when dealing with short duration criteria assessments, or 2) make a recommend for either the 2- or 3-zone approach.

ACTION: At the next CAP meeting the group will come to a decision about the above issue.

3. Decision rule for Continuous Monitors for the Instantaneous minimum attainment measures

Background

EPA was not satisfied with the previously proposed 1% rule. Tish Robertson proposed [an assessment methodology for high frequency monitoring data](#) (i.e. continuous monitoring). Her proposal suggests the need to allow for natural variability, detection of impairments without requiring a long deployment, inclusive of frequency and duration, and easy to implement. Tish came up with two proposals:

A determination of DO impairment will be made:

- A. If at least one DO exceedance was observed on more than 10% of the days monitored in a single season. (e.g., 120 days X 10% = 12 days can have an exceedance)

OR

- B. If there is more than one day in a single season where the DO concentration exceeded the criterion more than 10% of the time (e.g., 2.5 hours)

Conclusion

The CAP Workgroup was asked to review Tish's proposed methods for approval at the follow-up conference call.

4. Umbrella Criterion application approach

Background

Richard Tian pursued a [TEST](#) of the Umbrella Criterion application using a real set of data.

Conclusion

The CAP Workgroup was asked to review the TEST example for approval to include in the Addendum. This will be discussed at the follow-up conference call.

Follow-up Conference Call: [November 14, 2015](#)

Meeting Participants:

| LEADERSHIP | AFFILIATION | EMAIL |
|------------------------------|-------------|--|
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