Criteria Assessment Protocol Workgroup

August 19, 2020
1:00 p.m. – 3:15 p.m.

Webinar*:
https://umces.webex.com/umces/j.php?MTID=m2271eb0279d11c140f778a6e265e63a1
Meeting Number: 120-986-5470 Password: xyR5Kp6hvz2

Or Join by phone:
Conference Line: +1-408-418-9388 Access Code: 120-986-5470

Meeting Materials:
https://www.chesapeakebay.net/what/event/criteria_assessment_protocol_workgroup_august_2020_meeting
Location: Conference Call

*If you are joining by webinar, please open the webinar first, then dial in.
This meeting will be recorded for internal use to assure the accuracy of meeting notes.

AGENDA

1:00 **Welcome, introductions & announcements** – *Peter Tango, Chair Criteria Assessment Protocol workgroup, USGS@CBPO*

- National Monitoring Conference, Providence, R.I. April 20 – 22, 2021. Abstracts due September 24, 2020.

1:05 **Water Quality Standards Attainment Results, and, a first look into "Attainment Sensitivity" – Qian Zhang (UMCES) & Peter Tango (USGS)**
Qian will present the last Water Quality Standards Attainment results and show how dissolved oxygen results influence our need to look further at climate influence on criteria attainment for the future. We are also exploring the idea of understanding the buffer that might exist for segments in attainment of criteria and how resilient a segment may be in sustaining its attainment status.

1:25 **Climate Change and the Challenge of Meeting Open Water DO Water Quality Standards Attainment – Lew Linker (EPA)**
The Chesapeake Bay Open Water dissolved oxygen (DO) water quality standard of 5 mg/l (5.5 mg/l in tidal fresh waters) was established to protect the growth of larval, juvenile, and adult fish and shellfish. Under climate change conditions the average annual temperature is estimated to increase by 1 ^{o}C over the three decade period between the hydrology used for the Chesapeake TMDL (1991 - 2000) and the year 2025 and by 2 ^{o}C by 2055. Challenges in maintaining achievement of an Open Water DO water quality criteria of 5 mg/l in all open

water designated uses at all times will inevitably increase throughout the next half century.

1:50 **Exploratory Analysis of historical data: The influence of temperature on dissolved oxygen resources in the Open and Shallow waters of the Chesapeake Bay – Rebecca Murphy (UMCES) & Breck Sullivan (CRC)**
An update on progress with the ongoing investigation of climate risk on attainment of Open Water DO standards will be presented. The investigation centers on long-term observations of temperature, salinity, and DO in shallow Open-Water (generally less than 2 meters depth) and deeper Open-Water DO in main-Bay segments (extending in depth from the surface to the pycnocline). Ultimately the goal is to assess observed Open Water DO trends by CB-segment in order to understand the risk of increased temperature effects on meeting Open-Water DO criteria.

2:15 **Stresses, challenges and paths forward with the CBP Water Quality Monitoring Program to address assessment of all applicable criteria – Peter Tango (USGS)**
Peter will introduce at least six ways to close the loop on unassessed criteria attainment assessments. This introduction will provide a roadmap to discussions, decisions and commitments necessary for our program to fully address the criteria suite in the Water Quality standards for the Bay by adapting to limited opportunities to expand support for the traditional water quality monitoring program**.**

2:35 **Coincident interests in criteria assessment with USEPAs Continuous Data WG**

- **2:35-2:50 Continuous Monitoring Analysis Questionnaire - Danielle Grunzke (EPA)**
  An EPA workgroup is compiling resources and writing a Q&A document focused on quality assurance of continuous data (post-collection) and its use in assessment purposes. This Q&A document is aimed to help states, tribes and EPA review and use continuous data in the context of 303(d) listing and other water quality decision-making.
- **2:50-3:15 Exploratory Exercise: Dissolved Oxygen Assessment Methodologies in Rivers and Streams. Leah Ettema (EPA-Wheeling, WV)**
  Leah has evaluated a diverse suite of potential assessment metrics for dissecting and summarizing criteria attainment and violations with continuous monitoring dissolved oxygen time series collected from the Catatonk River in NY. Leah will provide insights on the comparative analysis across the metrics for describing and visualizing the results.

3:15PM **Adjourn**