



Updates from the August 2024 **Criteria Assessment Protocol WG** meeting Colonial Beach, VA

Peter Tango, CAP WG Chair
BORG meeting
September 16, 2024

Meeting objectives

- Continue building common understanding on evolving and improving our monitoring and regulatory assessment frameworks.
- Take stock of Dissolved Oxygen (D.O.) criteria assessment options
- Continue building community understanding of the new tidal Chesapeake Bay water quality interpolator.



3 Sessions

- Monitoring and Assessment Framework
- Interpolator 101
- Short duration criteria attainment considerations



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Monitoring and Assessment/Short duration criteria assessment

- EPA, VA and MD presented on regulatory needs related to 303d/305b reporting (Leah Ettema, Tish Robertson, Matt Stover = Thank you!)
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- Fundamental needs to document going forward include:
 - computational definitions for our DO criteria – with 15 minute data, what is our procedure for computing instantaneous minimums, 1 day mean, 7 day mean, 30 day mean?
 - Any minimum data requirements,
 - How to address data gaps in time series
 - Using data from multiple sources (e.g., nearshore con-mon and offshore vertical arrays)
 - Allowable criteria exceedance levels when high temporal frequency data assessments are available?
 - Consider interim assessment rules for making standards assessments while the new interpolator is under development
 - Fishing Bay, MD – case study for how to assess all DO criteria in one segment
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- Updated CB6/CB7 boundary conditions – final documentation by VADEQ and EPA is in the workd
 - Plan future CBP support for operating the new interpolator when it is available



Monitoring and Assessment/Short duration criteria follow-up

- Personal meetings with our partners are being planned
- Bi-monthly CAP WG meetings scheduled
 - *Increase our pace in addressing our growing laundry list of juicy, interesting issues*
- Monitoring strategy support is being developed
 - *EPA funding for a GIT-based proposal on strategy development is moving forward for 2024-2026.*
- Continued cooperation and collaboration with our partners on new interpolator development
 - *Recognize during the development process an evolution on the user interface*



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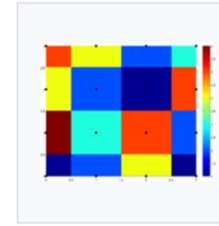


Interpolation session

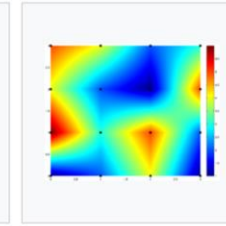
STEP 1. INTERPOLATION OF WATER QUALITY MONITORING DATA

USEPA 2003

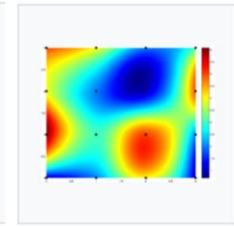
Spatial interpolation



Nearest neighbor



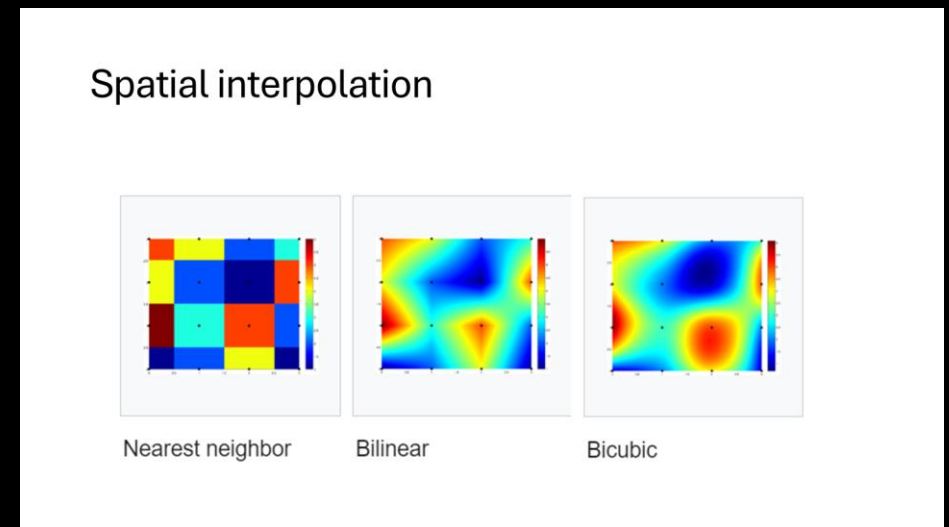
Bilinear



Bicubic

- We reviewed some basic concepts involving interpolation
 - Interpolation is not extrapolation, interpolation is done with our data
 - We are developing a method – advanced from the 3D Bay Interpolator method - that aims to support and improve our data analysis and interpretation
 - Outputs aim to further provide uncertainty around its results
 - The Bay Water Quality Model is not being used in the new interpolator

Interpolation session Follow-up



- Considerable interest has been expressed regarding
 - what data will be used
 - in what way will data/are data being used with
 - Development of the new interpolator
 - Running an assessment with the new interpolator
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- **BORG Team** will continue to show how data are being used to inform development
 - **CAP WG** will continue to work on the criteria definitions (IM, means and data needs) along with assessment details necessary to integrate with the **BORG Team** interpolator development
 - **Hypoxia Collaborative** and **CAP WG** will continue to address monitoring strategy support

Thank you for the great meeting in Colonial Beach VA!

