VMA Concerns with Proposed Revisions to the James River Chlorophyll a Criteria

Background

- The James River Chlorophyll a (CHLa) Criteria was adopted in 2005 with a driver to protect designated and beneficial uses of the James River.
- In 2010 the Bay TMDL developed nutrient loading targets in the James River based on the CHLa criteria.
- All parties agreed hat a scientific study was required to confirm the criteria and determine how/whether is correlated to nutrient reduction allocations.

Background

- The CHLa Study was established for three reasons
  1. To determine whether the CHLa criteria were correct (scientifically defensible)
  2. To evaluate whether the use of the criteria to determine nutrient reduction goals was appropriate (and, if not, to identify an alternative allocation)
  3. To determine how the criteria would be applied and assessed in a regulatory context

1. Existing CHLa Criteria Correct (Defensible)

- The Empirical Relations Report (EER) which was developed through a state-centered process defines a scientifically defensible range per segment and season.
- Although the focus of the SAP and the previous RAP meeting has been focused on debates about nuances in determining the criteria, the ultimate conclusion is that he existing criteria are generally defensible.
- Therefore, our recommendation is to accept that the current criteria are scientifically defensible and propose that no changes be made to the current criteria
- BUT . . .

Chlorophyll a Criteria

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Nutrient Allocations

2. We need to address the question of the appropriate nutrient allocations.

- Targets under the Bay TMDL resulted from use of an update EPA Water Quality Model – not the same model used to test attainability of CHLa criteria in 2005.
  - And used scenario results rather than direct use of modeling results
- EPA and DEQ acknowledged at that time that VA's CHLa criteria derivations were not "quantitatively precise" and that the "updated" model didn't calibrate.
- Therefore a modeling effort was developed to work in parallel to the SAP which was tasked with the development, calibration/ verification, sensitivity analysis and scenario development
  - Model validation and load scenarios were presented to DEQ earlier this year, but those results have not yet been made publically available

3a. Application of Criteria

- Without a completed model, the regulated community is unable to determine how the CHLa criteria will be applied (both in terms of compliance and in terms of nutrient allocations)
- The purpose of any stakeholder group is to provide DEQ with projected impacts of proposed decisions
- **This is the most critical aspect of the process for the regulated community**

3a. Application of Criteria

- It is imperative that DEQ provide necessary information about draft CHLa criteria and the resulting nutrient allocations based on any/all recommended changes to the criteria

- DEQ needs to clarify the goals of the RAP, what information will be submitted to the SWCB and potential TMDL promulgation

- Also need clarification on how all of this will be done by the December Board meeting

3b. Criteria Assessment

- VMA generally supports DEQs proposed changes to the Assessment Methodology
  - Additional monitoring stations
  - Increase in assessment period to 3 to 6 years

- Concerns with current method
  - Specifically that the CFD does not lead to accurate attainment determinations based on current monitoring program and that "the odds of making the right decision [pass or fail] are very little better than if he decision were reached by flipping a coin."

Conclusions

- VMA supports the completed EER as submitted and recommends that the report justifies the current criteria as scientifically defensible
- There is insufficient information available to evaluate the application of any criteria in terms of achieving CHLa criteria in the James River
- VMA is unable to assess projected impacts of any proposed criteria on nutrient allocations (and even if the criteria are a defensible basis for determining nutrient allocations)
- VMA supports DEQ's proposed revisions to the CHLa assessment methodology