

# CHESAPEAKE BAY PROGRAM WATER QUALITY GOAL IMPLEMENTATION TEAM

## JUNE 7<sup>TH</sup>, 2010 CONFERENCE CALL MINUTES

### SUMMARY OF DECISION AND ACTION ITEMS

**ACTION:** Provide feedback on non-attaining segments at various loading scenarios to Rich and Bob by Wednesday, June 9<sup>th</sup>.

**ACTION:** CBPO will provide the updated definition of E3.

**DECISION:** Tidal states will be involved in all discussions of state-specific segment attainment and non-tidal states will only be involved in those discussions with the potential to affect their target load.

**ACTION:** CBPO will follow up on the application of BMPs within Combined Sewer Systems.

### MINUTES

Updates and Announcements – Bob Koroncai

– June 14<sup>th</sup> will be a regulators-only call

Chlorophyll-a Non-Attainment Diagnostics – Jeni Keisman

Slide 2 – a critical period was not established for chlorophyll-a so we are considering attainment must occur across all years

Slide 3 – violation in 1999 is primary driver of non-attainment; highlighted station data that shows worse non-attainment under potential target scenario

Slide 5 – the regression does not show lower chlorophyll-a numbers under the management scenario as expected; second graph shows days through the summer of 1999 and compares the loads, which shows the response expected to management scenarios;

Slide 6 – Water Quality Sediment Transport Model (WQSTM) has difficulty simulating during this period in September 1999

Slide 8 – DCPTF: top half is season 1, bottom half is season 2

Slide 9 – shows persistent violation, sometimes increasing under lower loading scenarios, which is not the expected response

Slide 10 – data from lower stations was interpolated higher up into the DC portion of the Potomac tidal fresh; violation increases or stays the same in management scenario; calibration plot does a pretty good job at capturing the general variation of chlorophyll-a in the model, but the magnitude is greater than the observed values

Slide 11 – model generally predicting a lower chlorophyll-a violation with a lower load, which we would expect

Slide 12 – These are log values. The lines represent calibration regressed against itself and various scenarios; outliers represent application of regression to historical data. Extrapolation outside of range of historical data is not as representative

Slide 13 – 2% violation in the middle critical periods

Slide 14 – violation in 1995 driving 2% violation; station data shows reduction in observed violation in management scenarios

Slide 15 – green line is criterion, pink is calibration, blue is 180, black is E3; looks like the response that would be expected

**Discussion:**

- For the James River, tidal fresh chlorophyll-a will be achieved through local rather than global load reductions.
- Virginia expressed concern about the calibration for chlorophyll-a, which is quite variable.

**Basin-wide Loading to Achieve Main Bay Water Quality Standards** – Bob Koroncai

Slide 4 – with whole number rounding, 190 loading level may potentially provide attaining water quality in the main Bay. Returning again to the Tributary Strategy level of effort

Slide 5 – Non-asymptotic reduction in non-attainment with load reduction; cfd analysis that shows if a segment is passing or failing the entire segment volume passes or fails rather than a certain volume. Only failing if greater than 1% and through cfd curve

**Accounting for and Resolving Dissolved Oxygen Criteria in Non-attaining Segments** – Rich Batiuk

**ACTION:** Provide feedback on non-attaining segments at various loading scenarios to Rich and Bob by Wednesday, June 9<sup>th</sup>.

**Moving Toward Achieving All DO and Chlorophyll Water Quality Standards** – Lewis Linker

Slide 1 – We are not advocating any load reductions at or beyond E3 or advocating a particular target load

Slide 11 – Both N and P are significant

Do all states/jurisdictions want to be involved in the discussion of state-specific segment attainment discussions?

NY – no, okay with process Lewis described for the MD segments, will email suggestions

PA – no, so long as apply principle of taking reductions from jurisdiction that originated water quality standard and not Susquehanna or PA Potomac

WV – same as PA, want to be involved only if WV is impacted

DE – only want to be involved if it involves the Eastern Shore

DC – only want to be involved on anything that involves DC

VA – DEQ would like to be notified when you have any discussion to see how process is working out in other areas

MD – agree with VA

**DECISION:** Tidal states will be involved in all discussions of state-specific segment attainment and non-tidal states will only be involved in those discussions with the potential to affect their target load.

**Updated Phase 5.3 E3 Scenario** – Gary Shenk

Slide 5 – wooded area decreased because landuse change BMPs weren't properly accounted for

Slide 6 – areas with proportionally more developed areas will have higher loads and vice versa

**ACTION:** CBPO will provide the updated definition of E3.

**Ideas for Temporary Reserve** – All

- CBPO will be going to an updated model capturing the landuse change and nutrient management change. The Baywide loading would likely not change significantly, but it would impact the state-by-state allocations. A temporary reserve would prevent states from having to make additional reductions.

- WQGIT will complete discussion of the target loading to achieve water quality standards and the temporary reserve, and then the EPA Regional Administrator will convene the PSC to discuss our findings. Then he will send a letter identifying the loadings to each state.

The following suggestions were made for developing a temporary load reserve:

- Ron Entringer, NY DEC, states that for the headwater states all our load is calibrated in the model. Everything passing out of NY goes through a monitoring station, unlike the tidal states. The biggest uncertainties are loads from the tidal states and atmospheric deposition. If there is a factor applied to the loads it should be strictly on urban and areas well below fall line without monitoring stations. Nutrient management would affect NY, but all loads are calibrated against monitoring data.
- Gary Shenk, EPA, explained that with the land use change, the per acre loading for urban would stay at current level. Then we adjust loads for all land uses to meet calibration. Total urban load will absolutely increase. We will not change the overall loads very much, 80% of the load is monitored or comes from a point source. Forest is found by a subtraction, so new urban would come out of what was Wooded Open. The WQSTM will be recalibrated only if necessary depending on the results.
- Collin Burrell, DC DOE, pointed out that as DC loads are mostly point source and covered by permits, they have few load reduction options. When DC redevelops the stormwater regulations, we will increase infiltration and reduce loads. Gary Shenk, EPA, explained that the model could handle this with the BMP converting impervious to pervious. If it's inside CSS, it is not simulated through the model and may not be counted.

**ACTION:** CBPO will follow up on the application of BMPs within Combined Sewer Systems.

- Alan Pollock, VA DEQ, suggested that EPA should consider state specific reserves and that the reserve be as low as you can make it with an analysis on how it changes the percent of E3 states have to go to.

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