WQGIT Recommendations on Climate Allocations

May 26, 2020

Water Quality Goal Implementation Team Conference Call

WQGIT Decisions to Date

Climate allocation options

- Relative impact Conowingo
 - 1995 level as used in TMDL/2017

These don't matter!

- Current status
- Relative impact segments
 - Always use TMDL/2017 segments
 - Use the group of segments being protected
- Watershed loads first
 - Take out jurisdiction loads first
 - Do not consider jurisdiction loads

- Open Water
 - Ignore Open Water
 - Lump OW in with other segments
 - Separate allocations and then reconcile
- WWTP responsibility
 - Only non-WWTP sources
 - Include WWTP
- Variances
 - Assume variances can change
 - Keep variances the same
 - Meet variances and load balance

Requested WQGIT Climate Allocation Recommendations to the Management Board

- 1. WWTP responsibility
 - Only non-WWTP sources
 - Include WWTP
- 2. Watershed loads first
 - Take out jurisdiction loads first
 - Do not consider jurisdiction loads

- 3. Year
 - 2025
 - 2035
- 4. Open Water (Confirm April Recommendation)
 - How to deal with open water violations in the lower Bay

1. WWTP responsibility

- Increased effort can be allocated based on increased effort for non-WWTP loads or based on all loads
- Loads are specified by state-basin, not by source. Adding WWTP responsibility does not mean that jurisdictions must get reductions from WWTP, just jurisdictions with high WWTP loads will have to do more
- MD, VA, DC do more with All Loads / DE, NY, PA, WV do less with All Loads
- Total reduction needed is higher because WWTP loads are in less-effective areas

2. Watershed Loads First

Planning Target Calculation - Nitrogen

| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

- Ran WQSTM run to show reduced non-attainment for jurisdiction reductions equal to the climate load increase
- Allocated remaining effect

	Climate	Allocated Additional Reduction	
DC	0.00	0.00	0.00
DE	0.00	0.01	0.01
MD	0.11	4 0.09	0.20
NY	0.04	0.01	0.06
PA	0.09	0.12	0.21
VA	0.34	0.16	0.49
WV	0.01	0.01	0.02
Total	0.60	0.40	1.00

3. Year

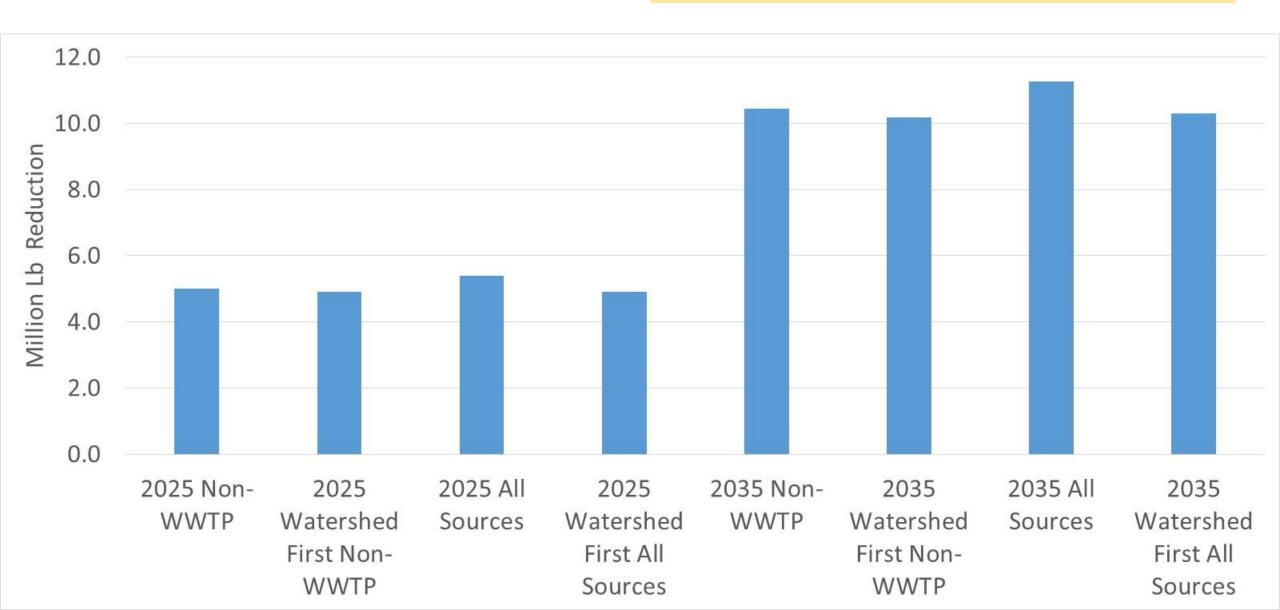
- What change to account for:
 - 1995-2025
 - 1995-2035
- When the reductions would need to be accomplished:
 - 2025
 - 2035
 - Some other date
- ➤ WQGIT previously discussed using the same year to account for the climate change and when the reductions would need to be accomplished

4. Open Water Decision

- Open water is an important use for living resources
- Open water may be more affected by temperature due to concentrations closer to saturation
- The Modeling Workgroup did not advocate for the WQGIT to drive allocations with CB6 and CB7 open water
 - Relatively insensitive to load reductions
 - No other Mainstem Open Water violations through 2055
 - Other large rivers mostly have no violations through 2055
 - Strong dependence on the appropriate delineation between 'Open Water over Deep Water' and 'Open Water to the bottom'
- The WQGIT decided to <u>not include Open Water</u> in the climate allocations pending CBF consideration

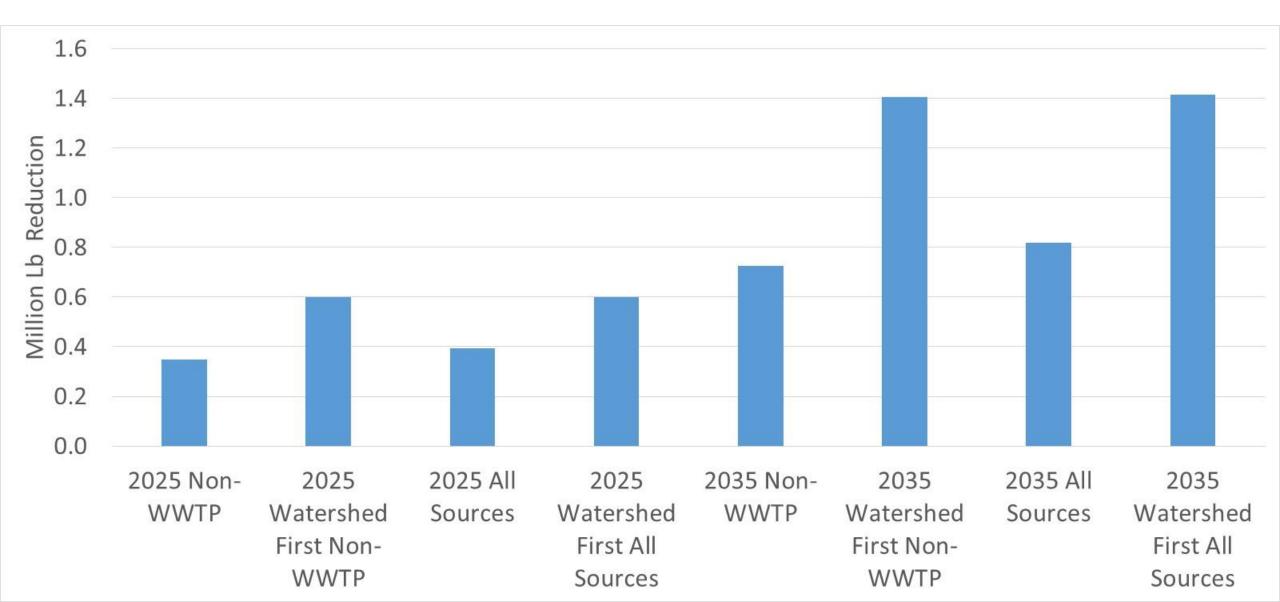
Nitrogen Total Reductions

- 2035 increases effort substantially
- Including WWTP increases necessary reductions
- Watershed loads first are a little lower for N



Phosphorus Total Reductions

- 2035 increases effort substantially
- Including WWTP increases necessary reductions
- Watershed loads first is a larger reduction for P



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 OR
- Include WWTP

2. Watershed loads first

- Take out jurisdiction loads first
 OR
- Do not consider jurisdiction loads

3. Year

- 2025
 - OR
- 2035

4. Open Water (Confirm April Recommendation)

Do not include Open Water