## **BAY PROGAM UPDATES**

# Climate Change and Conowingo WIP Developments

Karl Berger, COG Norm Goulet, NVRC

WRTC 09/11/2020

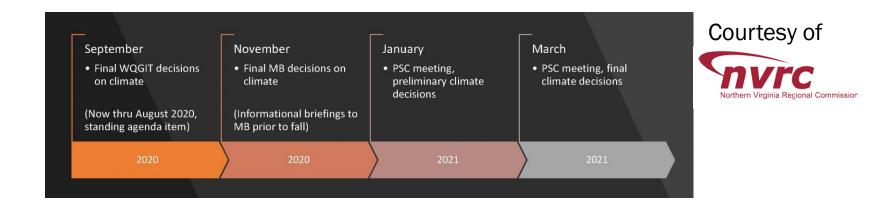


### Outline

- Climate Change:
  - Water Quality GIT recommendation
- Conowingo WIP
  - Not yet issued
  - Scope and financing still unresolved
- PA litigation developments



#### **Climate Change Schedule**



Final decision likely to be made by PSC in early 2021, although a consensus has emerged from the Water Quality GIT



## **Bay Program Climate Change approach**

#### Water Quality GIT recommendations as of Sept. 10

- For now, focus just on meeting the impacts of climate change through 2025
- Base decision on impact of climate change on DO attainment in deeper waters, rather than open waters.
  - Preliminary modeling results are showing increased non-attainment in shallower waters due to climate change, but further work is needed before making any decisions
- Choose allocation option that with least impact on most states ("Watershed Loads First")
- Adopt a narrative approach to meeting climate change impacts by 2035



### **Bay Program Climate Change approach**

Proposed additional reductions beyond the Phase III Planning Targets to account for the effects of climate change in millions of pounds per year.

2017 Climate L1st 2017 Climate		TN			ТР	$\frown$
State PSC increase Proposed PSC increase Proposed   DC 0.006 0.006 0.007 0.001 0.001   DE 0.397 0.036 0.039 0.006 0.003   MD 2.194 1.061 1.142 0.117 0.111   NY 0.400 <b>0.699</b> 0.399 0.015 0.044   PA 4.135 1.683 1.811 0.143 0.095   VA 1.722 1.476 1.589 0.187 0.337		Dec L1s	Adjusted	Dec	L1st	Adjusted
DC 0.006 0.006 0.007 0.001 0.001   DE 0.397 0.036 0.039 0.006 0.003   MD 2.194 1.061 1.142 0.117 0.111   NY 0.400 <b>0.699</b> 0.399 0.015 0.044   PA 4.135 1.683 1.811 0.143 0.095   VA 1.722 1.476 1.589 0.187 0.337		2017 Climate	L1st	2017	Climate	L1st
DE0.3970.0360.0390.0060.003MD2.1941.0611.1420.1170.111NY0.4000.6990.3990.0150.044PA4.1351.6831.8110.1430.095VA1.7221.4761.5890.1870.337	State	PSC increase	Proposed	PSC	increase	Proposed
MD2.1941.0611.1420.1170.111NY0.4000.6990.3990.0150.044PA4.1351.6831.8110.1430.095VA1.7221.4761.5890.1870.337	DC	0.006 0.00	0.007	0.001	0.001	0.001
NY0.4000.6990.3990.0150.044PA4.1351.6831.8110.1430.095VA1.7221.4761.5890.1870.337	DE	0.397 0.03	0.039	0.006	0.003	0.003
PA4.1351.6831.8110.1430.095VA1.7221.4761.5890.1870.337	MD	2.194 1.06	1.142	0.117	0.111	0.111
VA 1.722 1.476 1.589 0.187 0.337	NY	0.400 0.69	0.399	0.015	0.044	0.044
	PA	4.135 1.68	1.811	0.143	0.095	0.095
WV 0.236 -0.054 0.000 0.017 0.009	VA	1.722 1.47	1.589	0.187	0.337	0.337
	WV	0.236 -0.05	0.000	0.017	0.009	0.009
Total 9.089 4.908 4.986 0.485 0.599	Total	9.089 4.90	4.986	0.485	0.599	0.599

Water Quality GIT recommendation

"Dec 2017 PSC" numbers are the increases in load reductions required by 2025 considered by the PSC in December 2017, prior to model adjustments. "L1st Climate increase" are the increases in load reductions required by 2025 due to climate change based on the allocation method recommended by the Water Quality GIT. "Adjusted L1st Proposed" are the increases in load reductions required by 2025 based on a "special case" adjustment for New York.



#### Bay Program Climate Change Beyond 2025

- Water Quality GIT looked at 2035 numbers
- Will be reevaluated in 2025
- Currently, the estimated impacts by 2035 appear to about twice as high as estimated impacts by 2025

Proposed additional reductions beyond the Phase III Planning Targets to account for the effects of climate change in millions of pounds per year.

	TN		ТР			
	Adjusted		Adjusted			
	2025	2035	2025	2035		
	L1st	L1st	L1st	L1st		
State	Proposed	Climate Estimate	Proposed	Climate Estimate		
DC	0.007	0.007 - 0.040	0.001	0.001 - 0.006		
DE	0.039	0.112 - 0.138	0.003	0.007 - 0.007	Preliminary numbers	
MD	1.142	1.905 - 2.017	0.111	0.235- 0.242		
NY	0.399	1.191 1.202	0.044	0.08 <b>X</b> - 0.087	subject to	
PA	1.811	3.472 - 3.618	0.095	0.278-0.287	change	
VA	1.589	3.009 - 3.151	0.337	0.733 - 0.745	onango	
WV	0.000	0.299 - 0.308	0.009	0.052 - 0.053		
Total	4.986	10.187 - 10.288	0.599	1.404 - 1.416		

"L1st Climate increase" are the increases in load reductions required by 2025 due to climate change based on the allocation method recommended by the Water Quality including adjustments for the NY special case. "2035 L1st Climate Estimate" are the increases in load reductions required by 2035 due to climate change under two different allocation options.



### **Conowingo WIP**

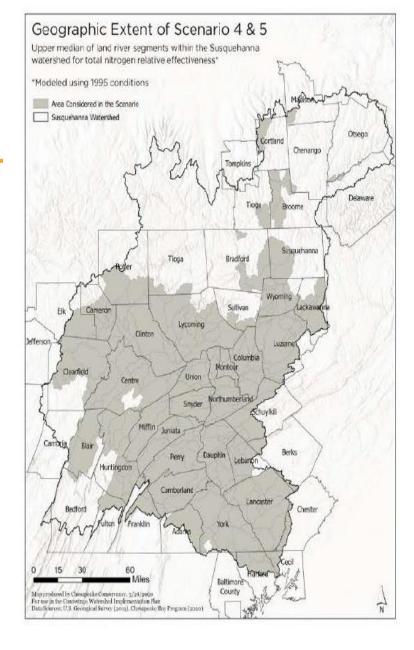
- Designed to address dynamic equilibrium conditions in lower Susquehanna dam systems
  - Approximate impact: 6 million pounds of TN, 0.26 million pounds of TP
- Original schedule called for final Conowingo WIP to be issued by June 2020
  - Issue date yet to be established
- Financing Strategy supposed to be issued in March 2021
  - Unclear if that will have local impact through diversion of funds



### Conowingo WIP Development

#### Current consensus

- Based on the most effective basins for nitrogen reduction in the Susquehanna basin
  - No BMPs outside the Susquehanna
- Implementation by jurisdiction: PA 95 %, MD- 2 %, NY 2 %
- Estimated cost = \$51 million/year





### **PA** Issue

- PA WIP III plan falls short of state's assigned reduction target (would achieve 75 % of the reduction target for nitrogen)
- Dana Aunkst, EPA's CBPO Director, has said achievement of 2025 planning target reductions is "aspirational," not enforceable
- CBF announced Sept. 10 that it is suing EPA for failure "to require Pennsylvania and New York to develop plans to sufficiently reduce pollution"
  - Anne Arundel County, the Maryland Waterman's Association and two other plaintiffs join lawsuit
- Reportedly, Maryland, Virginia, Delaware and the District of Columbia will file similar separate lawsuit



### **COG Bay Forum Discussion Points**

- Climate Change and Conowingo WIP allocation decisions should be reasonable and fair
  - A realistic approach to setting climate change nutrient reduction targets and developing the Conowingo WIP will account for affordability and a rate of implementation progress that is feasible
  - Phase III WIP funding in MD, DC and VA should not be diverted to support the Conowingo WIP
  - If these new allocations result in nutrient reduction targets greater than a particular state can currently handle, the best solution is to give that state more time and more federal resources to accomplish the increased goal



# For More Information

See:

https://www.chesapeakebay.net/channel\_files/41500/wqgit\_climate\_d ecision\_narrative\_v.09.03.2020.pdf

https://www.chesapeakebay.net/what/event/january\_2020\_modeling\_workgroup\_quarterly\_review

https://www.chesapeakebay.net/what/event/modeling\_workgroup\_dec ember\_inperson\_meeting

https://www.chesapeakebay.net/channel\_files/40316/20200121\_-\_\_\_\_bhatt - uswg -\_\_\_\_chesapeake\_bay\_program\_phase\_6\_climate\_change\_model\_initial\_fin \_\_\_\_dings.pdf

