CHESAPEAKE BAY PROGRAM UPDATES

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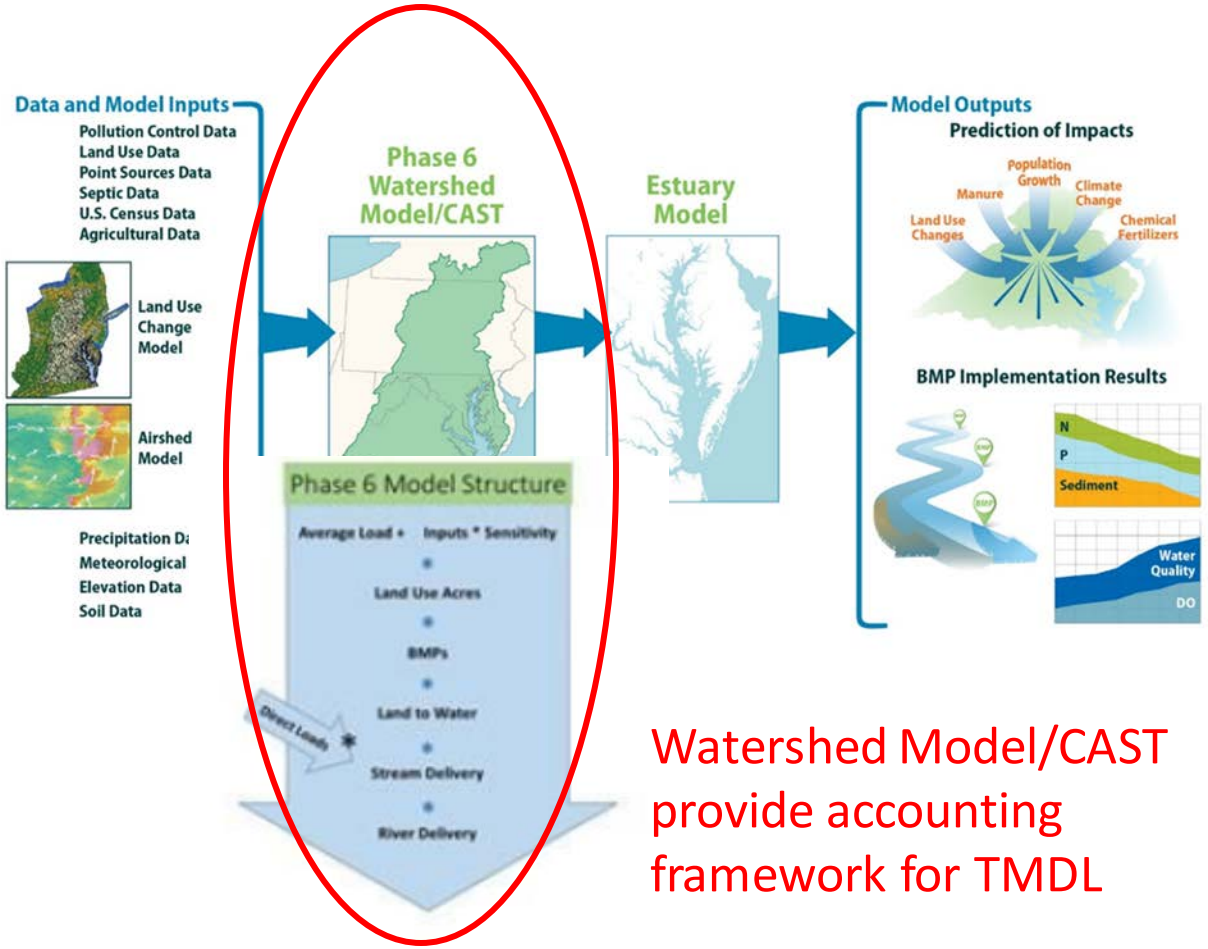
CBPC Meeting
March 18, 2022

To Be Discussed

- Modeling Issues
- Conowingo WIP
- Insights for Future COG Policy

Bay Program's Modeling Suite



Watershed Model/CAST provide accounting framework for TMDL

Latest Version of CAST Challenging State WIPs

Latest version of CAST has 6 million pounds of nitrogen more than previous version

Change in Nutrient Loads to the Chesapeake Bay

Differences between CAST versions with each update: 6.2M lbs TN, -0.6M lbs TP

By source sector; 2020 Progress scenario

Nitrogen

		CAST19 - CAST21 (Reviewed)		CAST21 Effect of Broiler Data		CAST21 Effect of Yield Data		CAST19 - CAST21 (All Effects)	
Jurisdiction	Source	(M lbs)	(%)	(M lbs)	(%)	(M lbs)	(%)	(M lbs)	(%)
CBW	Agriculture	4.056	3.4%	0.024	0.02%	1.863	1.5%	5.943	5.0%
CBW	Developed	0.177	0.4%	0	0	0	0	0.177	0.4%
CBW	Wastewater	0	0	0	0	0	0	0	0
CBW	Septic	-0.080	-1.0%	0	0	0	0	-0.080	-1.0%
CBW	Natural	0.120	0.3%	0.001	0.00%	0.094	0.2%	0.215	0.5%
CBW	AllSources	4.273	1.8%	0.025	0.01%	1.957	0.8%	6.255	2.6%

Phosphorus

		CAST19 - CAST21 (Reviewed)		CAST21 Effect of Broiler Data		CAST21 Effect of Yield Data		CAST19 - CAST21 (All Effects)	
Jurisdiction	Source	(M lbs)	(%)	(M lbs)	(%)	(M lbs)	(%)	(M lbs)	(%)
CBW	Agriculture	0.086	2.1%	0.001	0.03%	-0.029	-0.7%	0.058	1.4%
CBW	Developed	-0.454	-17.4%	0	0	0	0	-0.454	-17.4%
CBW	Wastewater	0	0	0	0	0	0	0	0
CBW	Septic	-0.003	-60.6%	0	0	0	0	-0.003	-60.6%
CBW	Natural	-0.127	-2.2%	0.000	-0.01%	-0.006	-0.1%	-0.134	-2.4%
CBW	AllSources	-0.498	-3.7%	0.001	0.01%	-0.036	-0.3%	-0.533	-4.0%

Modeling Issues

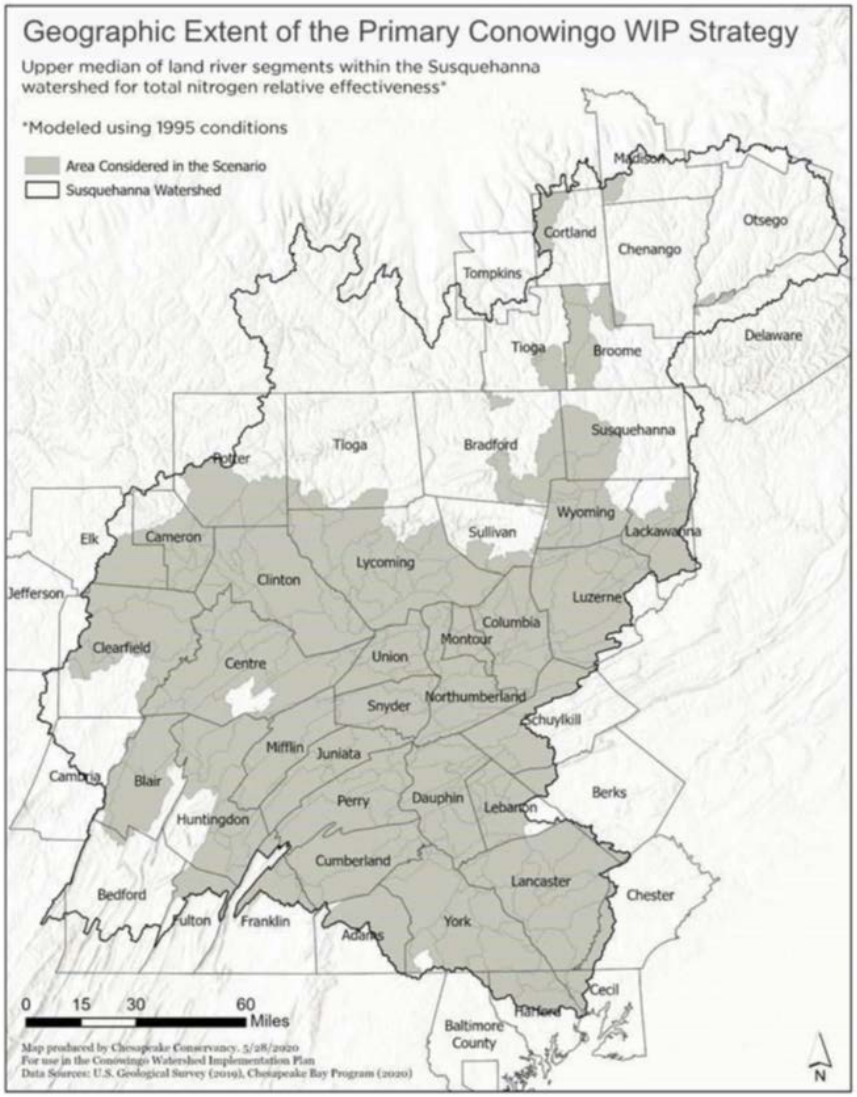
- Uncertainties make achieving WIP reduction goals more difficult
- Greatest uncertainty, biggest challenge is for Ag sector

- What will be the result of not achieving TMDL reduction goals (planning targets) by 2025?

Conowingo WIP Status

Plan to achieve the extra nutrient loads from dynamic equilibrium was produced in July 2021

- Reductions of 6.7 million pounds/year of N and 0.14 million pounds/year of P
- Approx. cost of $53 million/year for multiple years
- Geographical extent of reductions limited to actual Susquehanna basin



Conowingo WIP Impasse

- Conowingo WIP Steering Committee unable to agree on funding strategy
- EPA evaluation of Conowingo WIP released in late January
  - EPA III Administrator (Adam Ortiz) letter to Bay Program Principals' Staff Committee:

  - No funding commitments have been finalized
  - If adequate funding plan not in place in 60 days (end of March) **"nutrient loads will be re-distributed to jurisdictions, as appropriate"**

Conowingo WIP Impasse

Who would get the reassigned Conowingo loads?

- Ortiz letter mentions only states with land in Susquehanna basin
  - NY, PA, MD -- not DC, VA, W VA and DE
- 2010 Bay TMDL would appear to limit EPA's legal authority to just those states
- May also limit load reassignment to only those portions of the load that originate in each state

Conowingo WIP nitrogen load reduction goals

	Ag	Develop	Other	Total
MD	0.17	0.0	0.10	0.18
NY	0.07	0.01	0.0	0.08
PA	5.69	0.64	0.09	6.41
Total	5.93	0.65	0.19	6.67

Insights for COG Policy

Addressing shortfalls

- Bay Partners will not achieve 2025 TMDL reduction goals (PA gap)
- Conowingo WIP load reassignment could set wider precedent
- Can / will EPA reassign PA load reductions to other states

Addressing uncertainty

- Model issues will persist into 2025

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