

CHESAPEAKE BAY PROGRAM UPDATE

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WRTC Meeting
Sept. 10, 2021



Current Issues

- COG Bay Forum to be held Sept. 17
- Wastewater issues in Maryland re nitrogen reduction
- Other Issues
 - Climate change re flooding issues (already addressed)
 - Climate change in WIPs
 - New models
 - Conowingo WIP
 - Litigation

CBPC Bay & Water Quality Forum Speakers

- This the CBPC's tenth Annual Forum to discuss water quality issues with EPA and state representatives.
- EPA Region 3 Representatives will include:
 - Cathy Libertz, Water Division Director
 - Michelle Price-Fay, Chesapeake Bay Program Acting Director
 - Martha Shimkin, Chesapeake Bay Program Deputy Director
- State Representatives will include:
 - Ann Jennings, Virginia's Natural and Historic Resources for the Chesapeake Bay Deputy Secretary, and James Martin and Bryant Thomas, DEQ
 - Benjamin Grumbles, Maryland Department of Environment Secretary, and Lee Currey, MDE's Water and Science Administration Director
 - Tommy Wells, District Department of Energy and the Environment Director, and Jeff Seltzer, DOEE's Deputy Director of Natural Resources

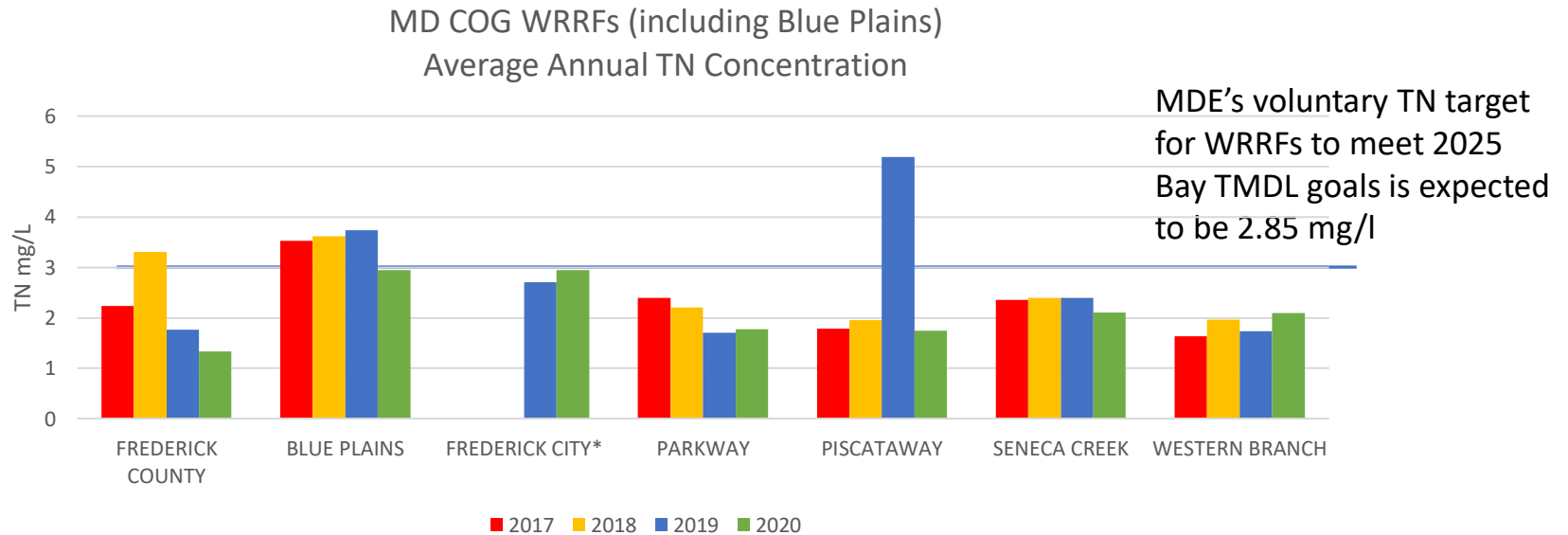


CBPC Bay Forum Topics

- Climate resiliency & flooding
 - How will the new precipitation data guide infrastructure or regulations (for stormwater BMP design, for example)?
 - What tools and funds can federal and state government provide to local governments to address flooding issues?
 - Do you see water quality and water quantity efforts as complementary or competitive?
- American Rescue Plan and Infrastructure Bill funding streams
- Bay restoration goals beyond the TMDL 2025 “deadline”: Expectations for ag, stormwater and wastewater sectors?
- Diversity, Equity, Inclusion, and Justice updates
- Bay success stories (agricultural or stormwater projects)

Wastewater Nitrogen Reductions - MD

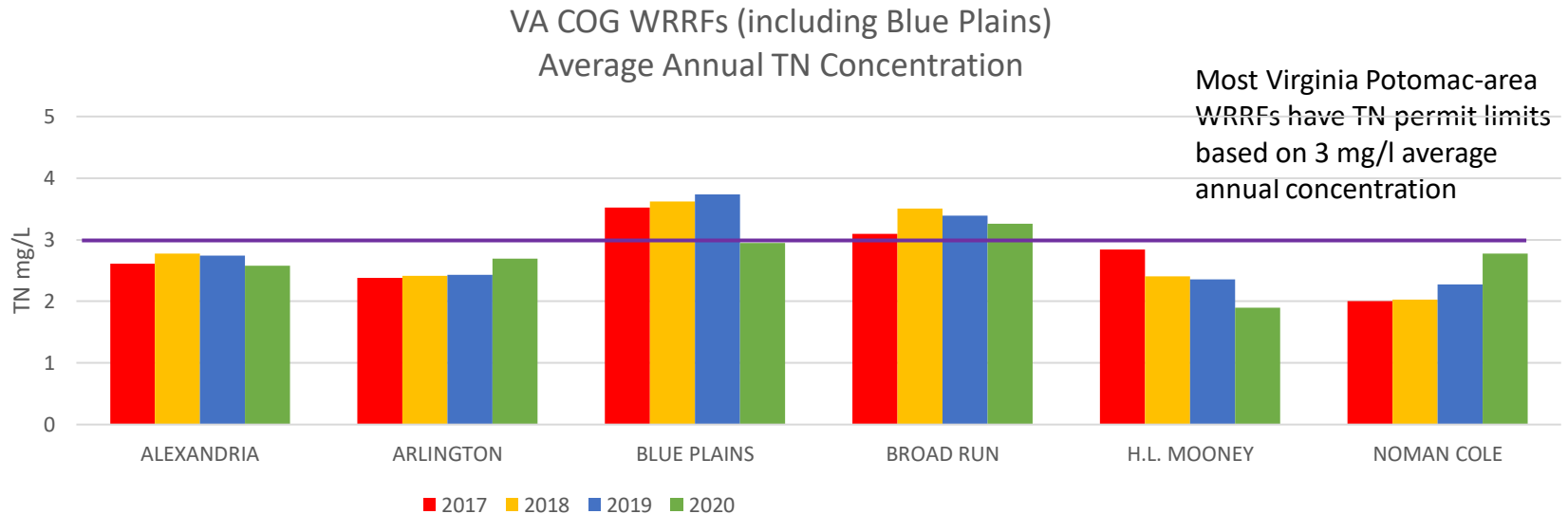
Current WIPs in MD, VA count on better-than required TN reduction by wastewater sector



* Frederick City fully implemented ENR in 2019

Data from CAST

Wastewater Nitrogen Reductions - VA



Data from CAST

But loads will increase over time, necessitating further reductions by other source sectors

Climate Change and WIPs

For 2025 WIP 3

- Need for additional 5 million lbs TN, 0.6 million lbs TP Bay-wide
- For DC and VA, reductions already in WIP 3s
- For MD: 1.142 million lbs TN; 0.111 million lbs TP
 - MD seeking greater wastewater reductions to achieve

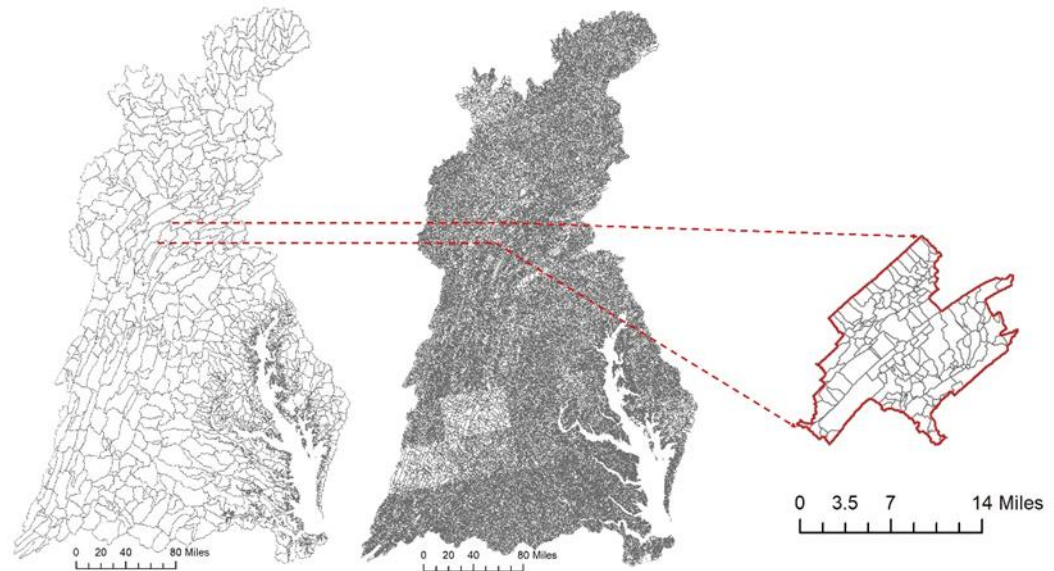
Climate change to be focus of 2021 Executive Council Meeting Oct. 1

- New directive “to address climate change in all aspects of Bay Program’s work”
- Bay Program staff looking at need for 2035 commitment
 - Anticipate model updates by 2025 will lead to new estimate for additional load reductions

New Model Development by 2025

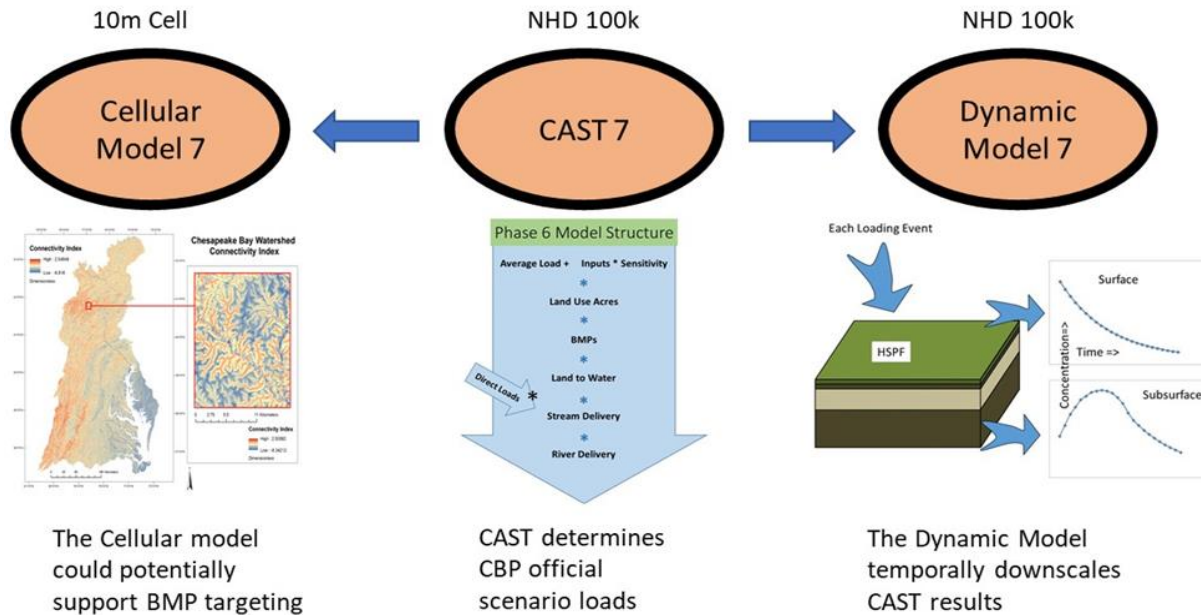
Designed to meet need for revised 2035 climate assessment in 2025

- Watershed model (CAST) Phase 7 now in development
 - Only 3 years of development time
 - Need to prioritize what can be done
 - Momentum for finer scale hydrology
 - Other upgrades?



Proposed new segmentation for the watershed model would allow differentiation of load sources within counties on a roughly one-square-mile basis or even 10-square meters

Watershed Model Development by 2025



- Finer scale applications could include BMP targeting using CAST cellular model
- However, concern about accuracy of some model inputs at this scale, particularly in agriculture
- Could have hybrid, with some aspects at finer scale and some at coarser scale

Estuarine Model Development by 2025

- Plan to replace current model with new model of tidal waters using an unstructured grid.
- Should do a better job assessing DO dynamics in shallow water, which is a weak point of current model
 - Bay Program Office (CBPO) released a Request for Proposal (RFA) for new model development in August; expect to initiate the work in December; and complete it by 2025
- Also plan to develop multiple tributary models for at least 3 major tributaries
- Potomac is likely to be one of them

Conowingo WIP

- Need to address “dynamic equilibrium” loads
 - About 6 M lbs/yr TN and 0.26 M lbs/yr TP
- Steering Committee issued draft implementation plan in 2020
 - Targets BMPs to areas with most impact on Bay water quality (i.e. mostly PA)

Conowingo WIP

- Implementation Plan recommends mostly ag and some urban BMPs
 - 95% of load reduction from PA
 - 89% from ag (PA wastewater is small contributor and is already at LOT)
- Annualized cost about \$53.3 million/year

Annualized Costs (in Millions of \$) by State and Sector for Primary CWIP Scenario			
	Agriculture	Developed	Total
MD	1.28	0.00	1.28
NY	1.43	0.08	1.50
PA	45.44	5.08	50.52
Total	48.15	5.16	53.30



Conowingo WIP

- Sticking point is who pays
 - PSC reps from outside PA concerned about apportionment of costs among states
 - Diversion of resources from state WIPs
 - Duration of commitment
 - What is physically possible to achieve
- Proposal for \$50 million pilot project through SRBC to get underway this fall

Litigation

- Two federal lawsuits filed against EPA in September 2020
 - Virginia, Maryland, D.C., Delaware
 - Chesapeake Bay Foundation and other parties
 - Challenging EPA's approval of "deficient" PA. NY WIP 3s
- Cases consolidated in November; still in briefing stage
- Potential for court settlement to shape next phase of Bay Program

