

Update on Water Quality Goal Implementation Team Recommendations and Timeframes

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Virginia's Chesapeake Bay Stakeholder Advisory Group

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Today's Objectives

- Updates in key midpoint assessment policy decisions
- Solicit SAG input and feedback on these decisions

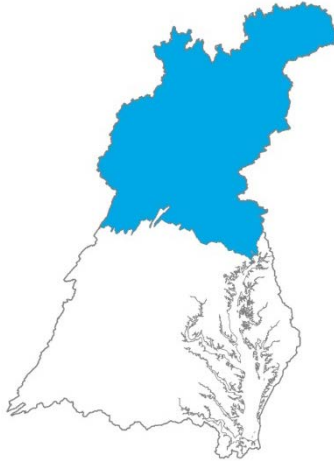
Draft Phase III WIP Planning Targets, Final Phase 6 Modeling Tools, and Final Policy Decisions Will Not Be Ready Until late December 2017

The overall schedule will shift by about 7 weeks

Conowingo Dam Infill

Recap of Policy Options

Who?



How?

Allocation equity rules
used in the Bay TMDL

Most cost effective
practices and locations

When?

By 2025

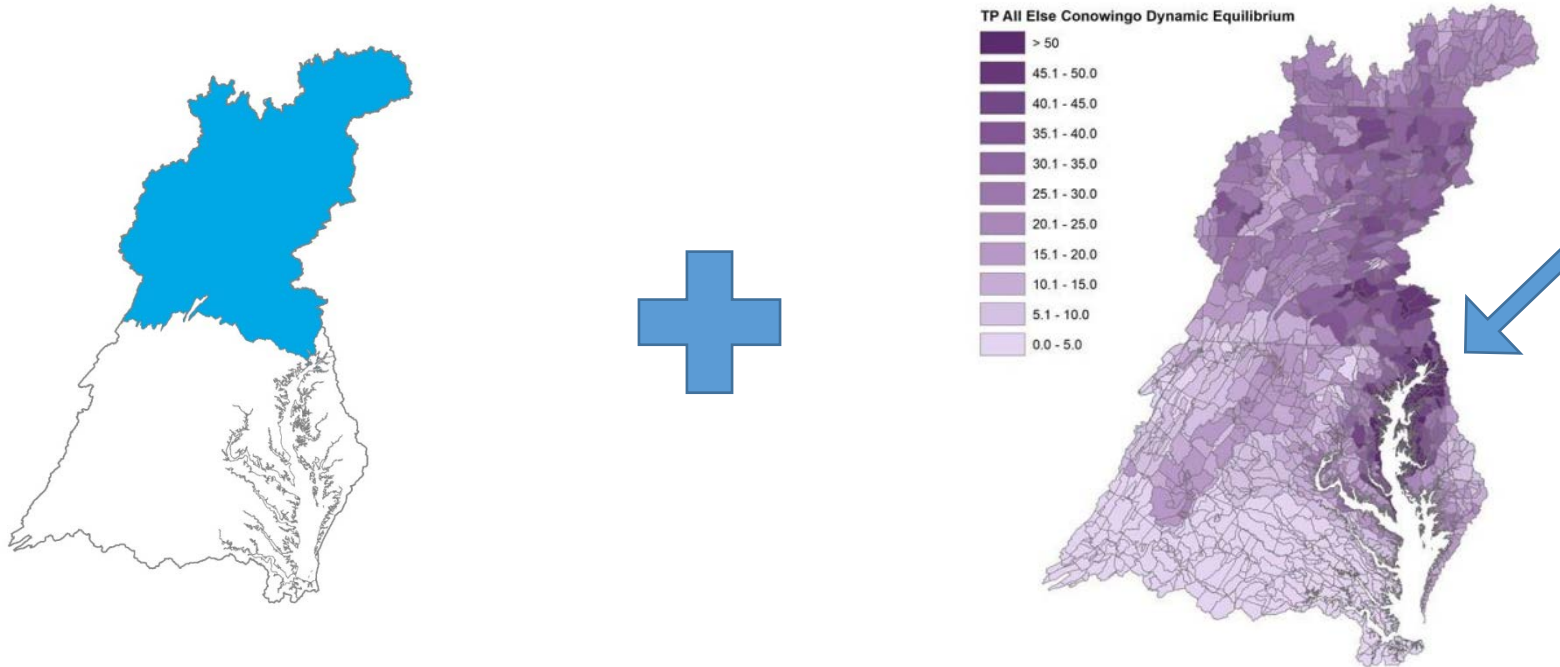
Beyond 2025

Post 2025

Conowingo Dam Infill

October 3, 2017 PSC Decisions

- PSC agreed to add the “Susquehanna + most effective basins” option for final PSC decision.



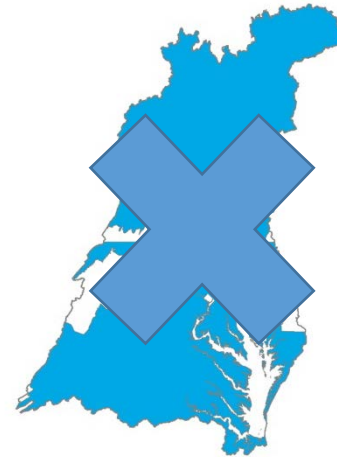
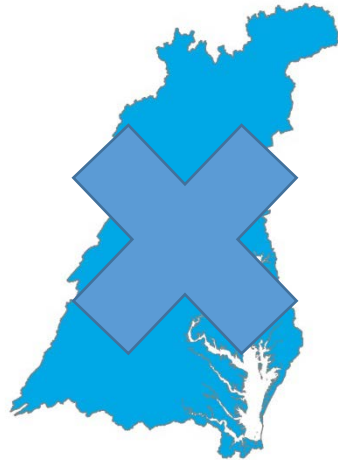
Susquehanna Options

Million lbs P	SusqOnly RE 1990s	Effective RE 1990s	Susq+MD+VA RE 1990s	AllBasins RE 1990s
	SusqOnly RE90	Effective RE90	Susq+MD+VA RE90	AllBasins RE90
DC	0.000	0.000	0.000	0.003
DE	0.000	0.000	0.000	0.017
MD	0.013	0.184	0.347	0.328
NY	0.111	0.093	0.072	0.068
PA	0.902	0.761	0.594	0.617
VA	0.000	0.000	0.641	0.605
WV	0.000	0.000	0.000	0.058
Total	1.026	1.038	1.655	1.697

Conowingo Dam Infill

WQGIT Recommendations and PSC Decisions

- Remove the options of “All Basins” and “Susquehanna + MD + VA” assuming responsibility for addressing Conowingo Dam.
 - Not cost-effective and negatively impacts WV, DE, and DC.



- PSC elected to keep all options on the table until the final decision is made at December 19-20 meeting

Conowingo Dam Infill

WQGIT Recommendations to the PSC

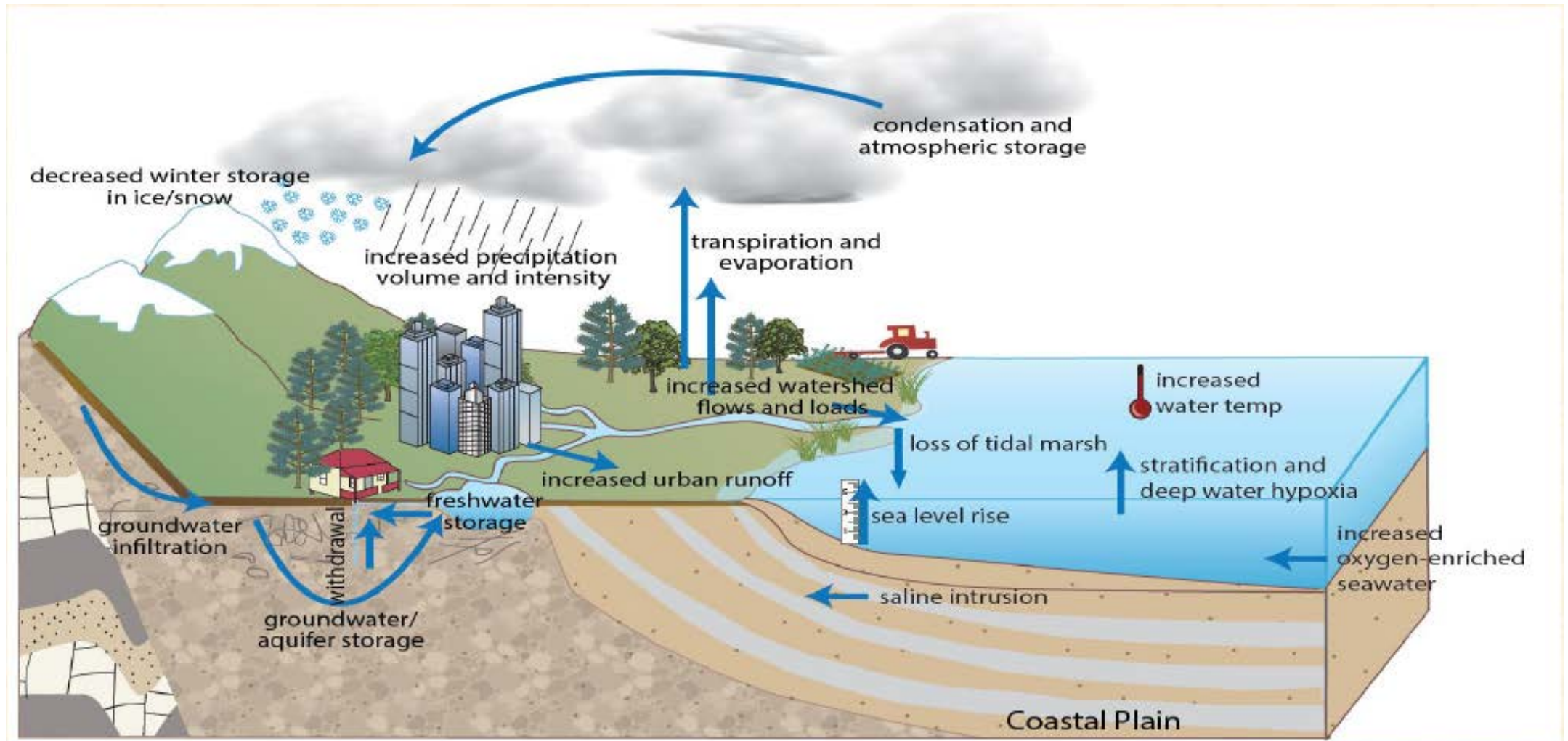
- Assign the loads associated with Conowingo infill as local planning goals, separate from the jurisdictions' Phase III WIP planning targets.
- MD, PA, NY, and Exelon would need to determine how to account for reductions equivalent to the load associated with Conowingo infill, coming up with a multi-strategy approach.
 - Strategy can go beyond looking at just load reductions – for example, N:P exchanges, dredging, USACE Comprehensive Plan, contribution(s) from Exelon, adjustments to WQ standards.
 - Implementation beyond 2025 may be necessary given the impacts to levels of effort.

Conowingo Dam Infill

October 3, 2017 PSC Decisions

- PSC agreed to draft a letter on expectations for the role of Exelon in addressing increased loads associated with Conowingo infill, as part of the Clean Water Act 401 certification.
- PSC will review a draft of the letter at one of their upcoming meetings.
- PSC deferred other Conowingo decision until December 19-20, 2017.
 - PSC wanted to see final data from models to understand impact of all options to WIP III level of effort.

Climate Influence on the Bay Watershed



Keeping Score for 2025

In the Watershed

Increased
Precipitation Volume
= Hypoxia ↑

Increased
Precipitation Intensity
= Hypoxia ↑

Increase in Temp and
Evapotranspiration
= Hypoxia ↓



In the Estuary

Increased WS Loads
= Hypoxia ↑

Increased WS Flows
= Hypoxia ↓

Increased
Temperature
= Hypoxia ↑

Sea Level Rise
= Hypoxia ↓

Climate Change

Recap of Policy Options

Quantitatively – accounting for additional loads due to climate change impacts projected through 2025 in the models and explicitly in Phase III WIPs

AND/OR

Qualitatively – adaptively manage climate change considerations through the implementation of BMPs (with climate resilient characteristics) and other commitments described as a narrative in the Phase III WIPs and adjusted in 2-year milestones

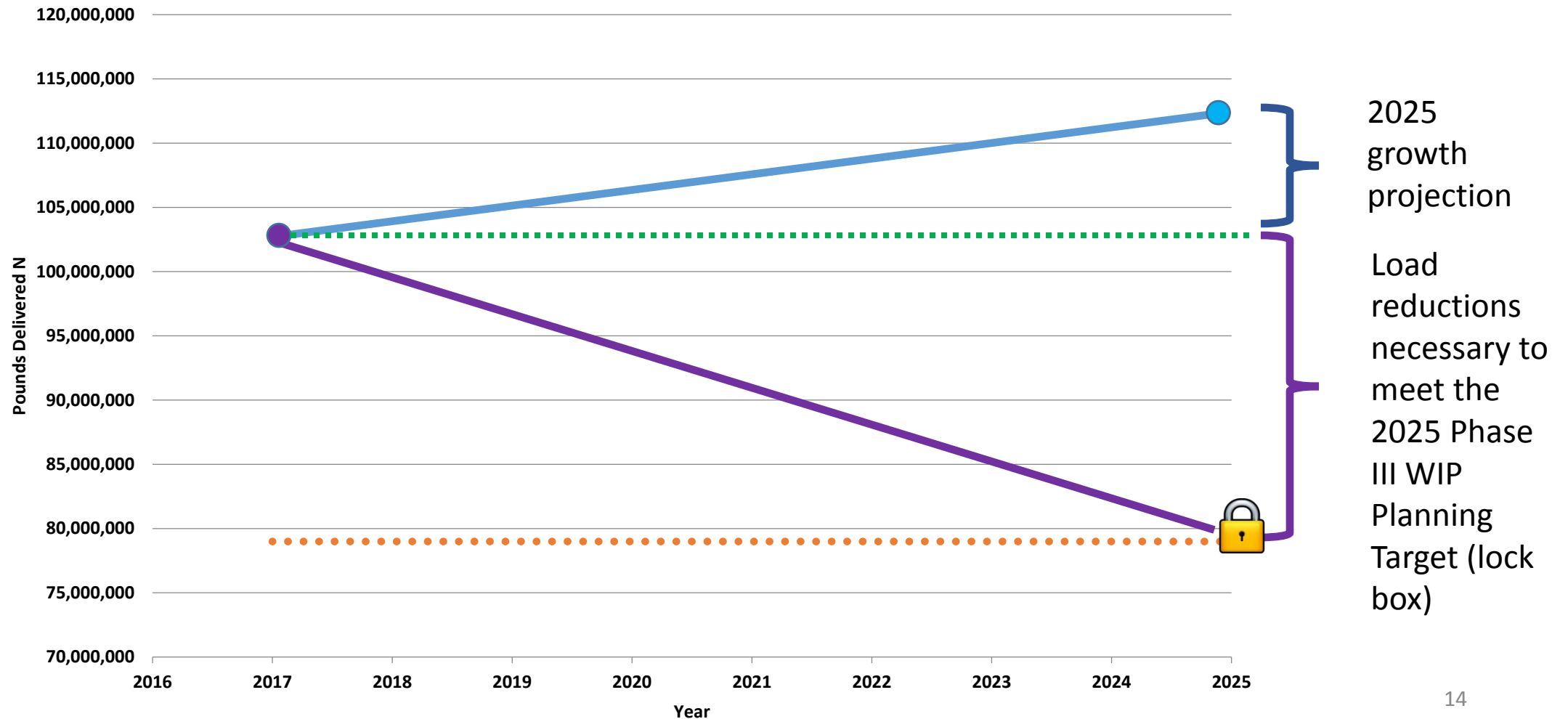


Climate Change Decision Path

- **Decision Point #1:** Approve policy approach to guide jurisdictions' development and implementation of their Phase III WIPs.
 - Specific detailed language describing Quantitative and Qualitative options
- **Decision Point #2:** Establish “minimum” standard for implementation in jurisdictions' Phase III WIPs.
 - Choose Quantitative, Qualitative or Both
- **Decision Point #3:** Establish the level of flexibility among jurisdictions for implementation of climate change policies that exceed minimum standards.
 - If the partnership chooses Qualitative only, do the Jurisdictions have flexibility to use the Quantitative approach as well
- PSC deferred decision until December 19-20, 2017.
 - PSC wanted to see final data from models to understand impact of quantitative approach to WIP III level of effort.

Accounting for Growth

Should 2025 Future Projections be Used to Account for Growth in the Phase III WIPs?



Accounting for Growth

WQGIT Recommendations to the PSC

- **Use 2025 growth projections as base conditions for the Phase III WIPs.**
 - This approach explicitly accounts for growth in the Phase III WIPs.
 - 2025 growth will be forecasted using historic trends supplemented by local zoning information from local governments.
- **Update the growth projections every 2 years with the best available data to inform the development of the two-year milestones.**
 - Allows for adaptive management to changing growth patterns and trends as we approach 2025.
 - Allows state and local jurisdictions to report new data based on updated policies, ordinances, etc. that will change growth patterns.
- **PSC deferred decision until December 19-20, 2017.**
 - There was general support for the WQGIT recommendation, but PSC wanted to see final data from models to understand impact of this decision to WIP III level of effort.

Planning Targets

Step 1: Baywide Assimilative Capacity

The total load of pollutants that the Bay can receive and still meet dissolved oxygen water quality standards.

The dissolved oxygen water quality standards depend on the “designated use” of the area

- Migratory Fish Spawning and Nursery Areas

- Shallow and Open Water Areas

- Deep Water

- Deep Channel

The Bay Water Quality Model helps us determine the Baywide maximum load (December 2017)

Planning Targets

Step 2: State-Basin Planning Targets

Subdivision of the Baywide Assimilative Capacity to the State-Basin scale

Guiding principles for this subdivision:

- Areas that contribute the most, must do the most

- Get credited for past implementation

- Loads must result in water quality attainment

The Bay Watershed and Water Quality Models helps us determine the State-Basin Planning Targets

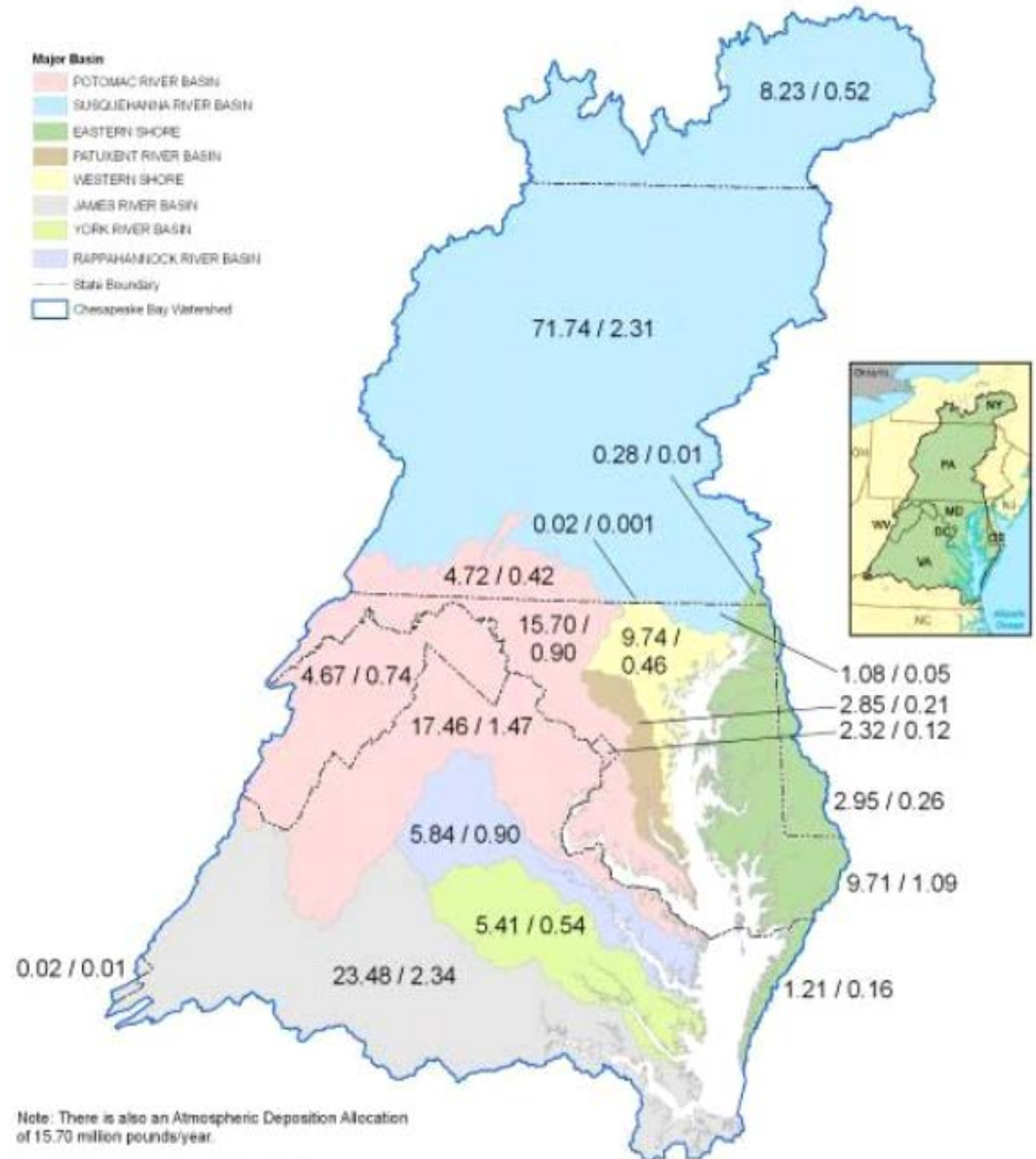
Draft Planning Targets – December 22, 2017

Final Planning Targets – May 7, 2018

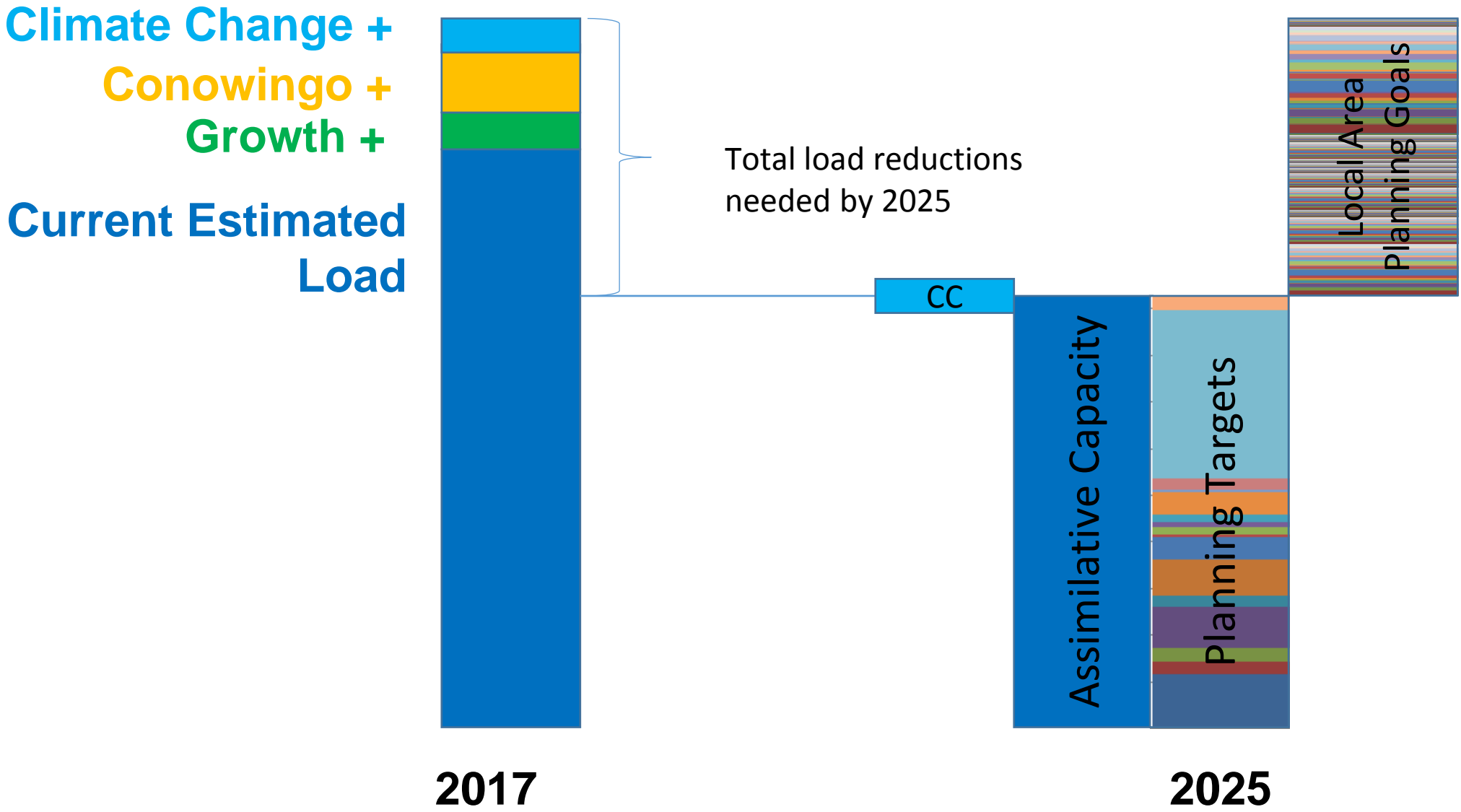
Results are the allowable Nitrogen and Phosphorus loads for each State-Basin

Loads must result in water quality standards attainment

From there, states will have flexibility in establishing local area planning goals at a finer scale.



Intersection of These Key Decisions



Summing up...

- Baywide Assimilative Capacity
 - Single number Baywide for N and P
 - December 2017
- State-Basin Planning Targets
 - 5 Virginia State-Basin values for N and P
 - Draft: December 22, 2017, Final: May 7, 2018
- Local Area Planning Goals
 - Jurisdictionally determined
 - Finer than State-Basin scale
 - Non-enforceable
 - June 7, 2018

Revised Midpoint Assessment Schedule

- **December 19-20, 2017**

- PSC meeting to make final decisions on how to address Conowingo Dam and climate change in the Phase III WIPs; approval of the Phase 6 suite of modeling tools; and release of the draft Phase III WIP planning targets for 4-month Partnership review.

- **December 22, 2017**

- Release of the draft Phase III WIP planning targets.

- **May 7, 2018**

- Release of the final Phase III WIP planning targets.

- **February 8, 2019**

- Draft Phase III WIPs posted on jurisdictions' websites for partner and public stakeholder review.

- **June 7, 2019**

- Final Phase III WIPs posted on jurisdictions' websites