

# HALF-WAY TO CLEAN WATER

The TMDL Mid-Point Assessment

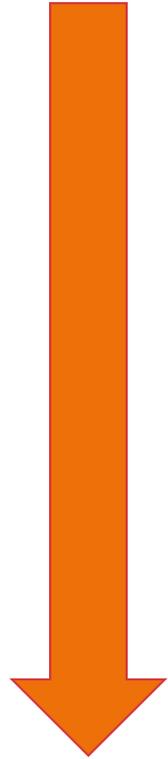


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Executive  
Director

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Pennsylvania  
Director

November 10, 2017

# Chesapeake Bay TMDL



2010: TMDL established

Phase I WIPs

Phase II WIPs

2017: MID-POINT ASSESSMENT

60% of needed reductions

2019: Phase III WIPs

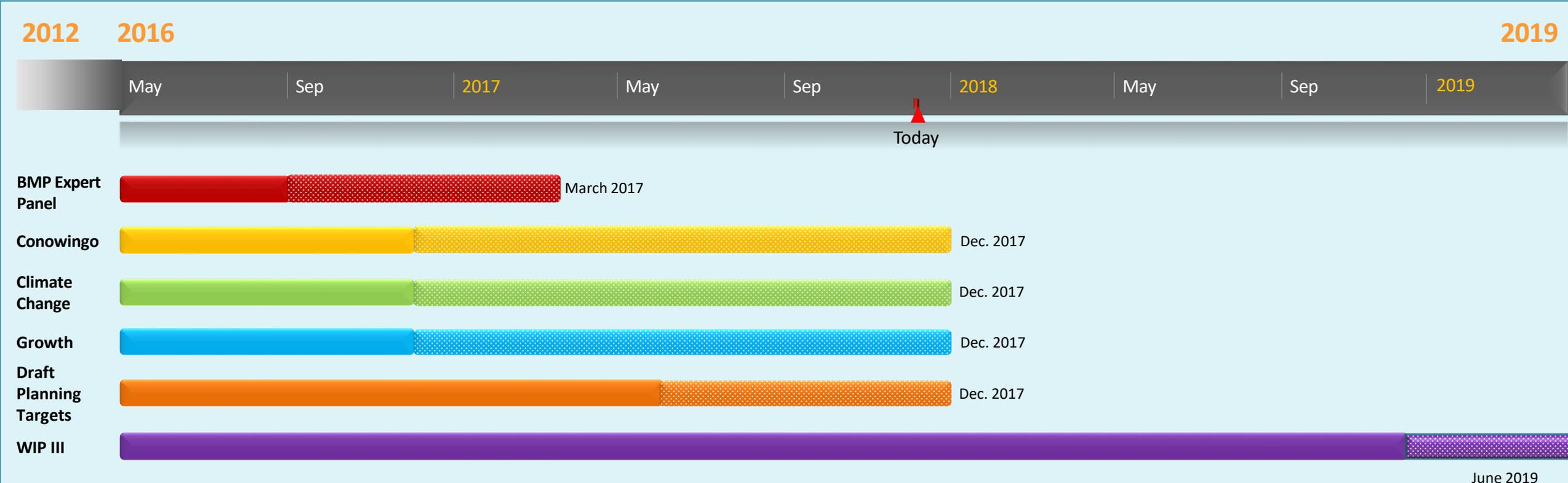
2025: 100% OF NEEDED ACTIONS

2017  
What is the  
Mid-Point  
Assessment?

- Evaluation of progress towards interim 2017 target (“60% by 2017” goal) & 2025 trajectory
- Update to Chesapeake Bay Watershed Model
  - Data
  - Assumptions
  - Calibration
  - Scale
- Accounting for changed conditions due to Conowingo, climate change, and growth

# THE MID-POINT ASSESSMENT

## Big Picture Schedule



The decisions are technical...

**... BUT WHAT ARE THE  
POLICY IMPLICATIONS?**

# Conowingo Dam



- No longer trapping sediment

## IMPLICATIONS:

Increased loads will need to be offset

May

Sep

2017

May

Sep

2018

May

Sep

Today

Conowingo

Dec. 2017

# Conowingo Dam

- WHO?
- HOW?
- WHEN?

May

Sep

2017

May

Sep

2018

May

Sep

Today

# Conowingo Dam

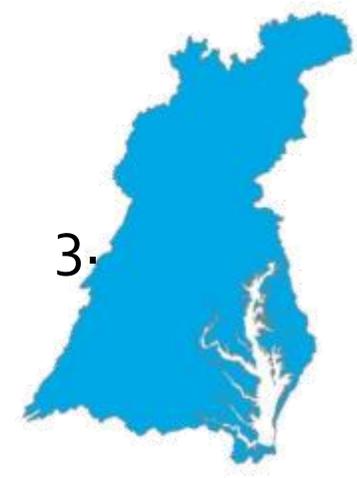
## Four Policy Options



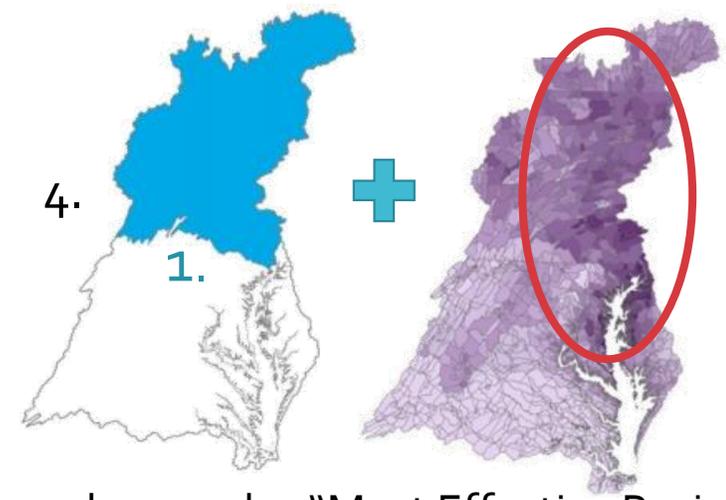
Susquehanna only



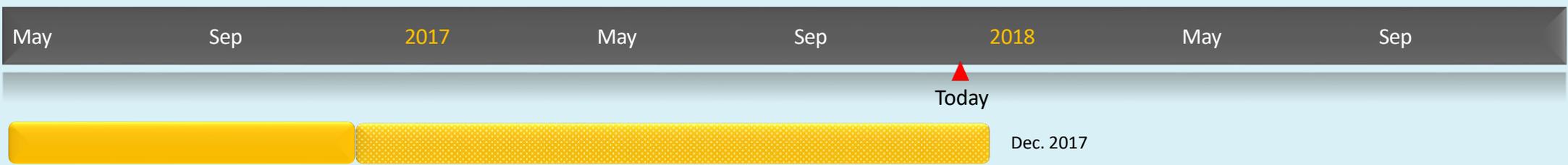
Susq. + MD + VA



Everyone

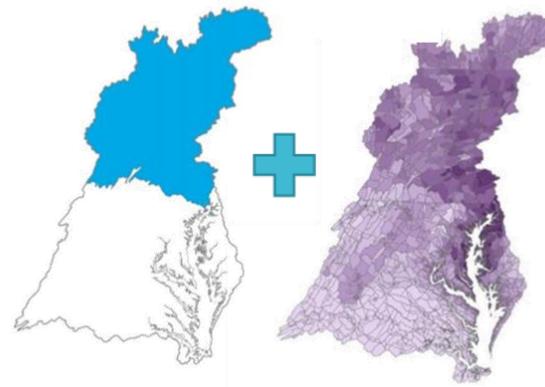


Susquehanna plus "Most Effective Basins"



# Conowingo Dam

## Option 4



- 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.

May

Sep

2017

May

Sep

2018

May

Sep

Today

Conowingo

Dec. 2017

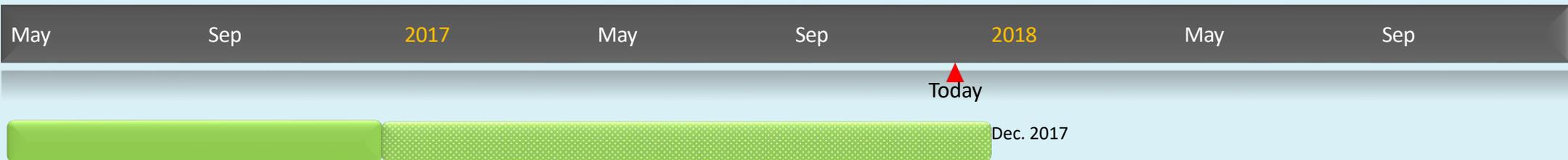
# Climate Change



- Estimate future conditions

## IMPLICATIONS:

More reductions may be needed to achieve clean water



# Climate Change

## 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 ↓

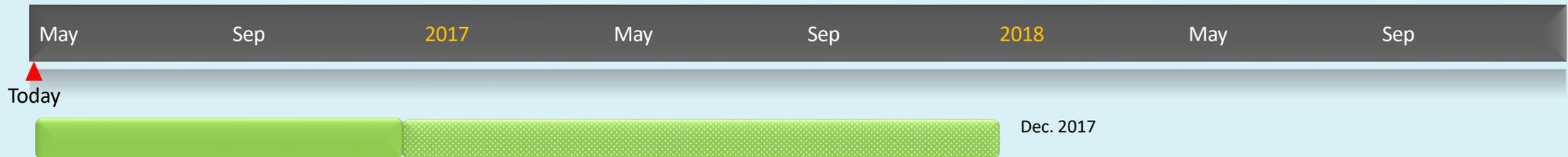
↑ Increased (worse)

↓ Reduced (better)

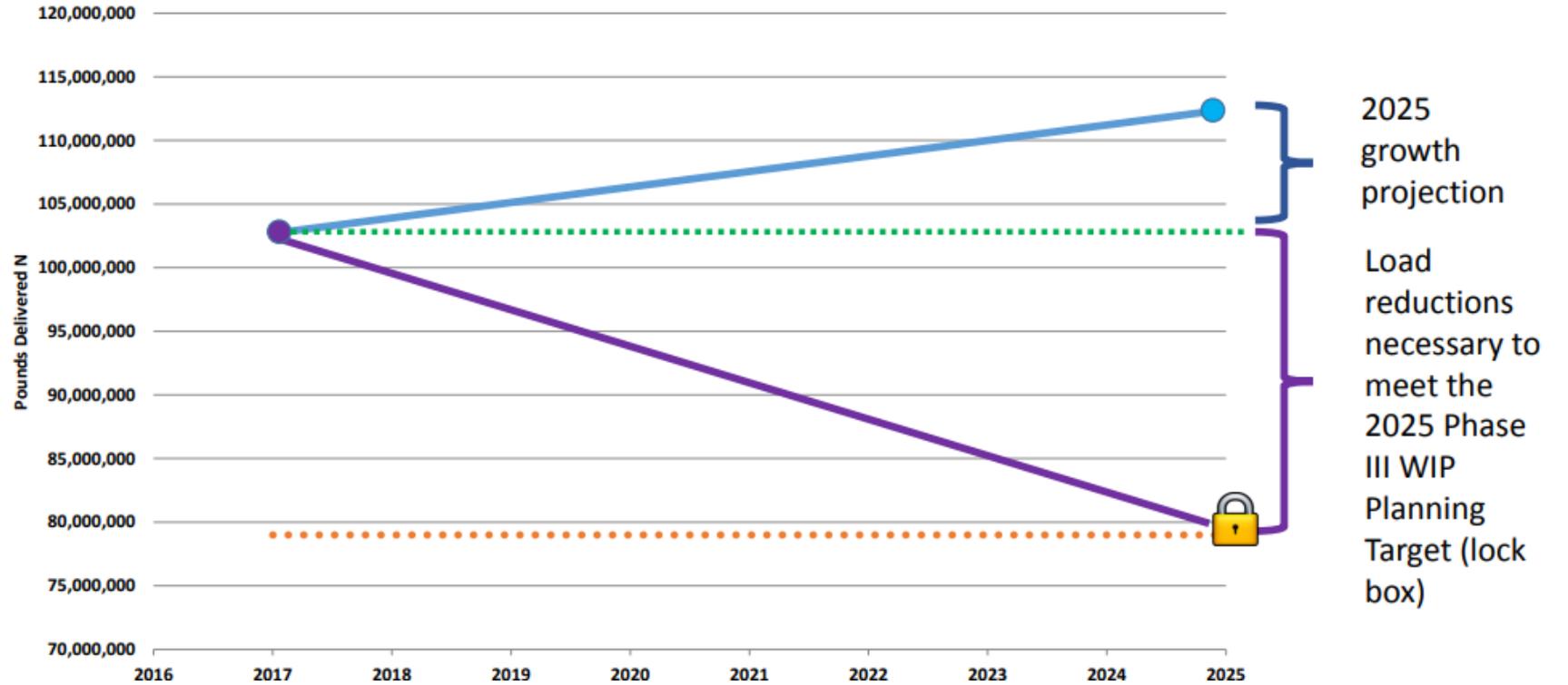
# Climate Change

## HOW TO ADDRESS?

- Numerically
- Programmatically

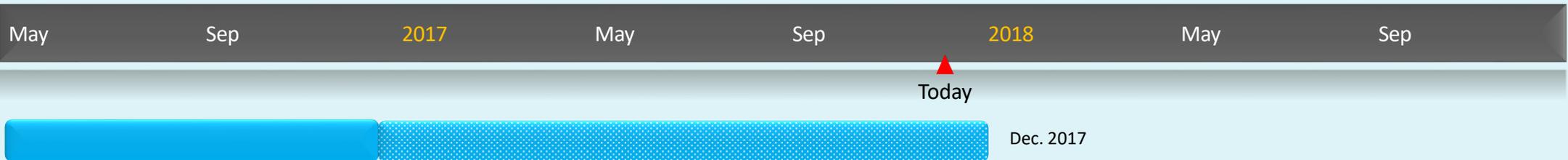


# Accounting for Growth

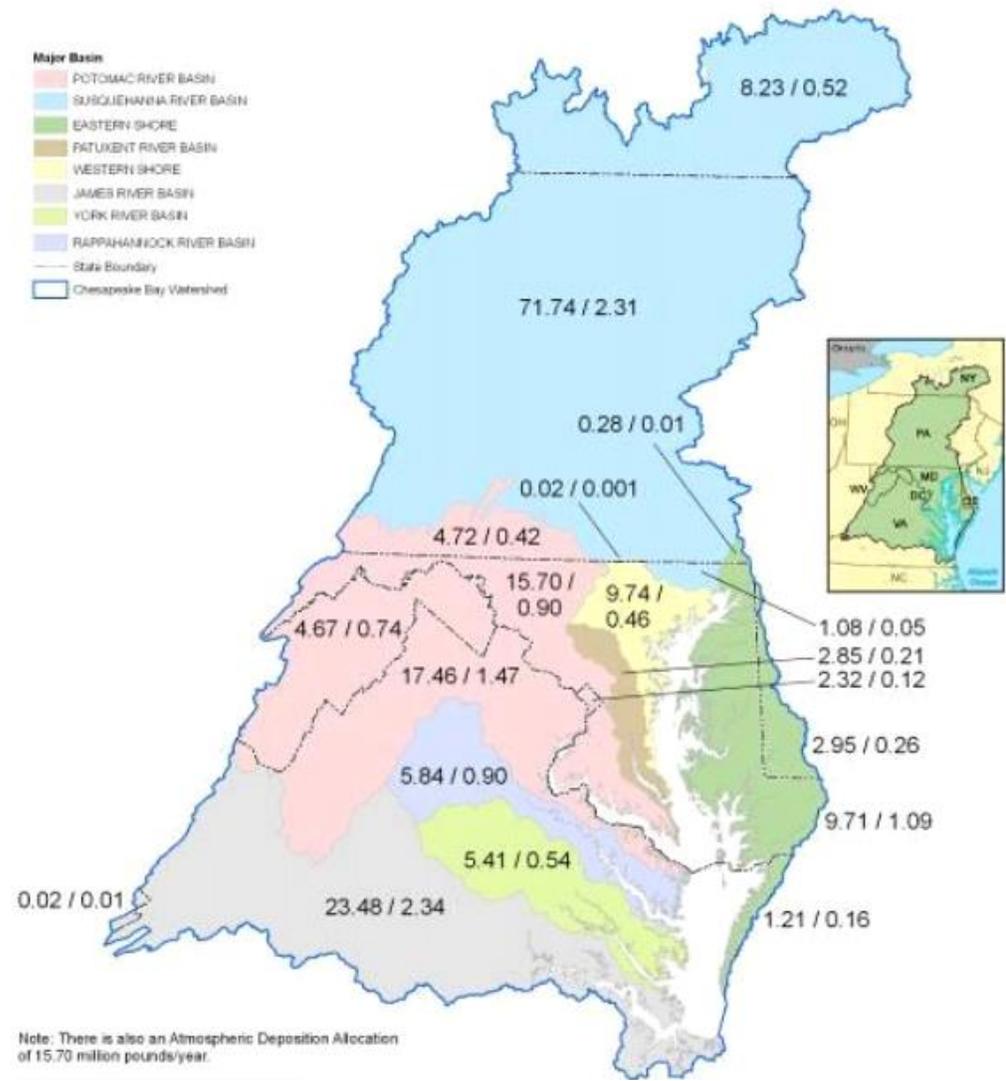


## IMPLICATIONS:

New loads must be offset, or more reductions needed



# Planning Targets



Draft Targets



Final Targets



# Phase III WIPs

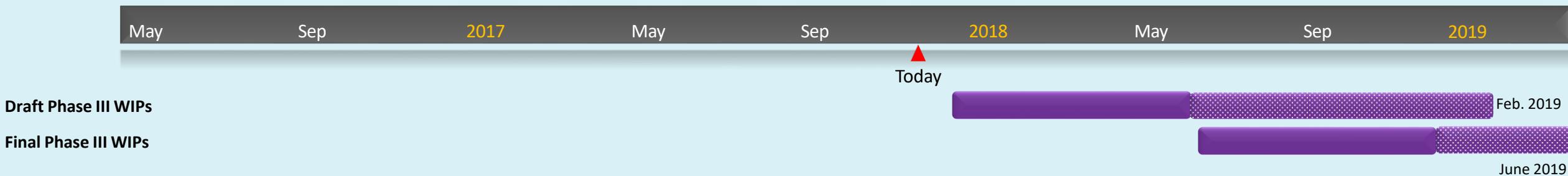
- Jurisdictional plans to get us from 2018-2025
- Based on Phase 6 Model & EPA expectations

## IMPLICATIONS:

Setting realistic expectations

Adjusting responsibilities

Local Area Goals



# Looking Ahead

- December 14: CBC meeting on Conowingo
- December 19-20: PSC meeting
  - Decisions on Conowingo, Growth and Climate Change
  - Adopt Draft Planning Targets
- January CBC: Update on Decisions  
Review of Draft Planning Targets