

HALF-WAY TO CLEAN WATER

The TMDL Mid-Point Assessment



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Chesapeake Bay TMDL



2010: TMDL established

Phase I WIPs

Phase II WIPs

2017: MID-POINT ASSESSMENT

60% of needed reductions

2019: Phase III WIPs

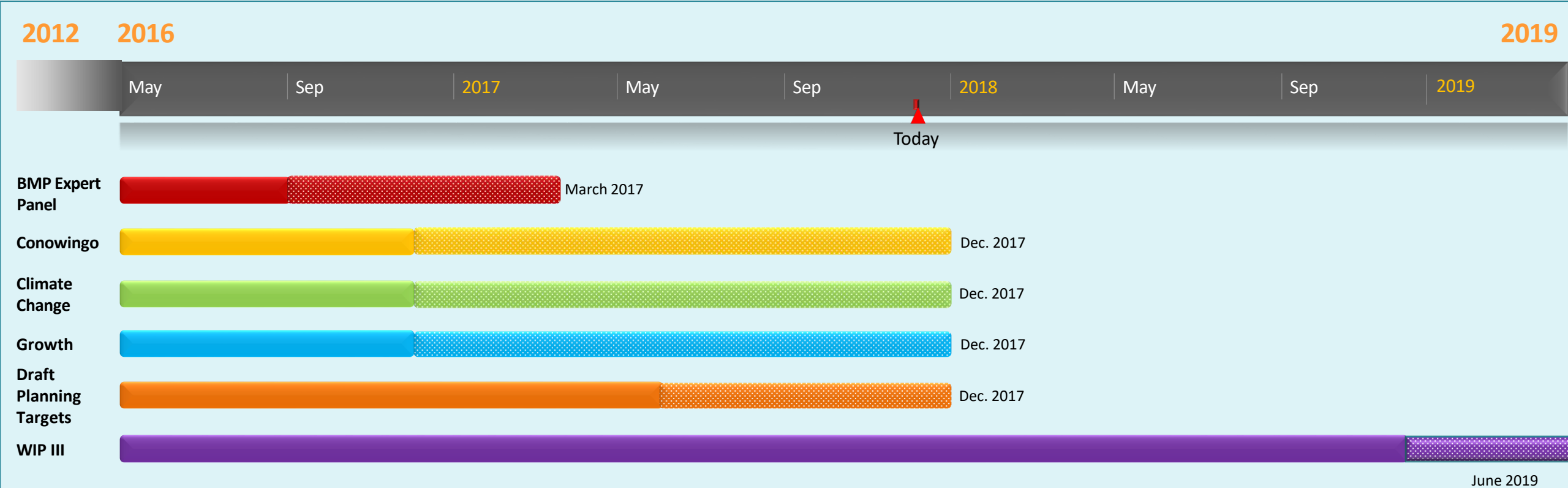
2025: 100% OF NEEDED ACTIONS

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

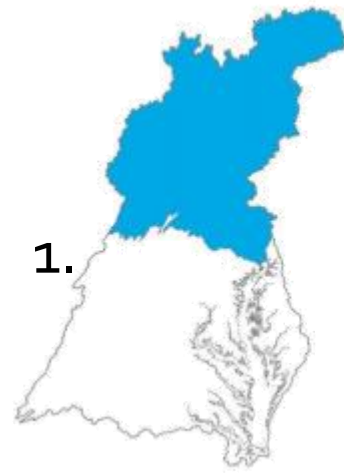
May

Sep

Today

Conowingo Dam

Four Policy Options



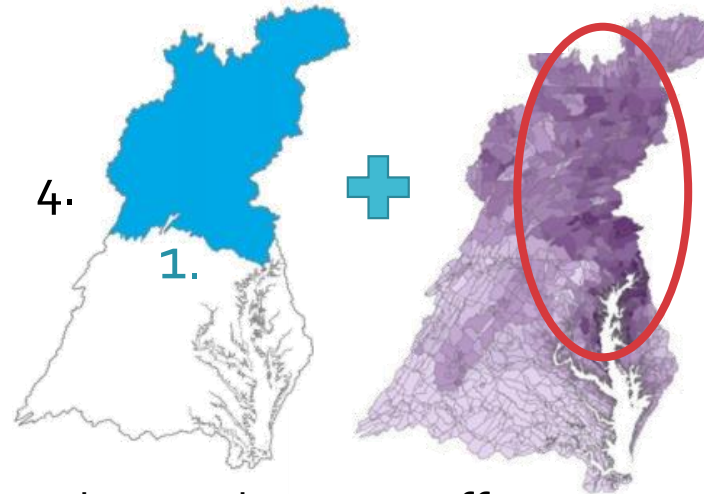
Susquehanna only



Susq. + MD + VA



Everyone



Susquehanna plus "Most Effective Basins"

May

Sep

2017

May

Sep

2018

May

Sep

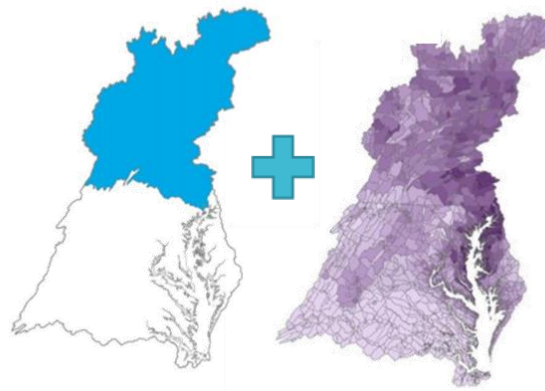
Today

Conowingo

Dec. 2017

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

May

Sep

2017

May

Sep

2018

May

Sep

Today

Dec. 2017

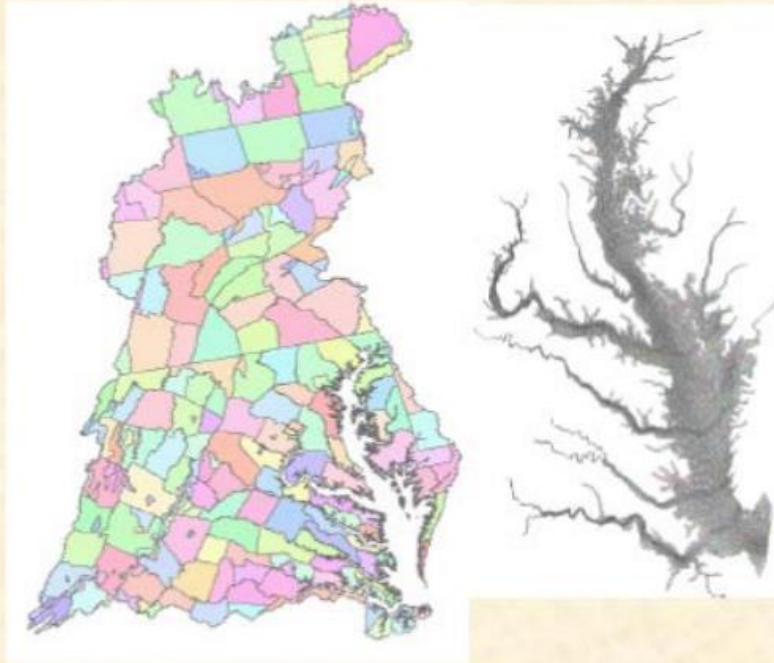
Climate Change

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 ↓

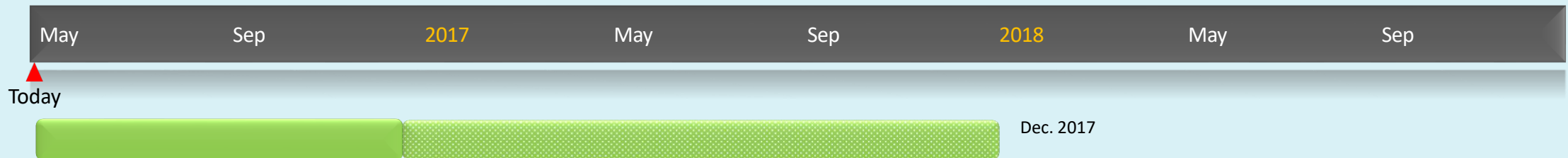
↑ Increased (worse)

↓ Reduced (better)

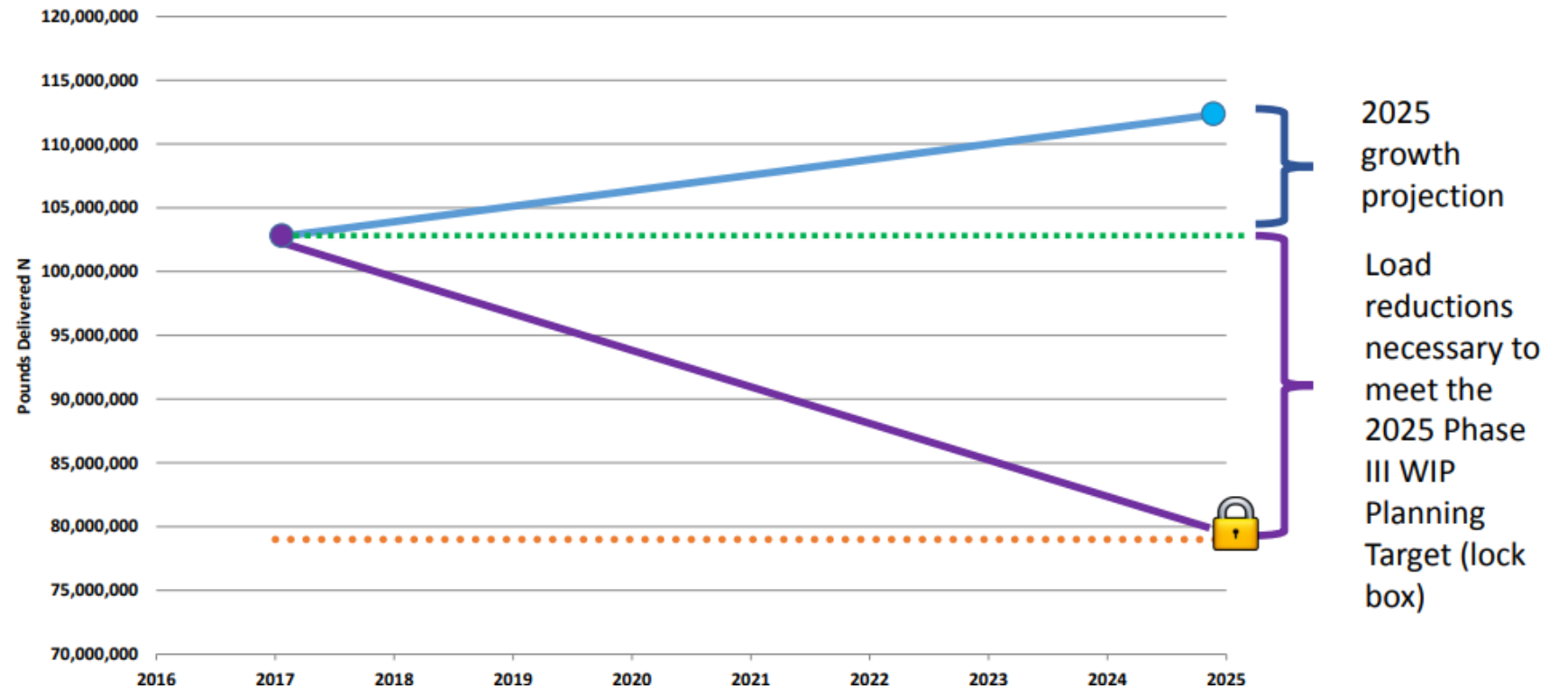
Climate Change

HOW TO ADDRESS?

- Numerically
- Programmatically

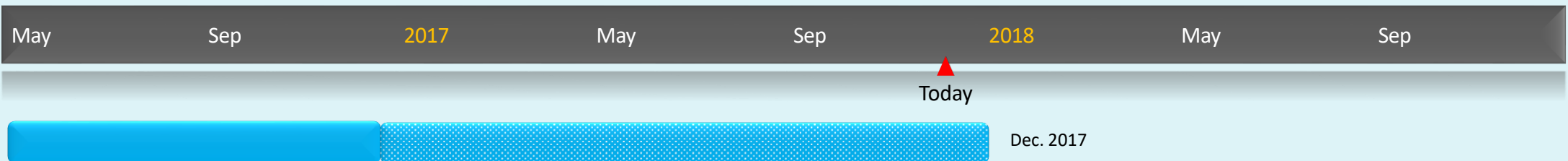


Accounting for Growth

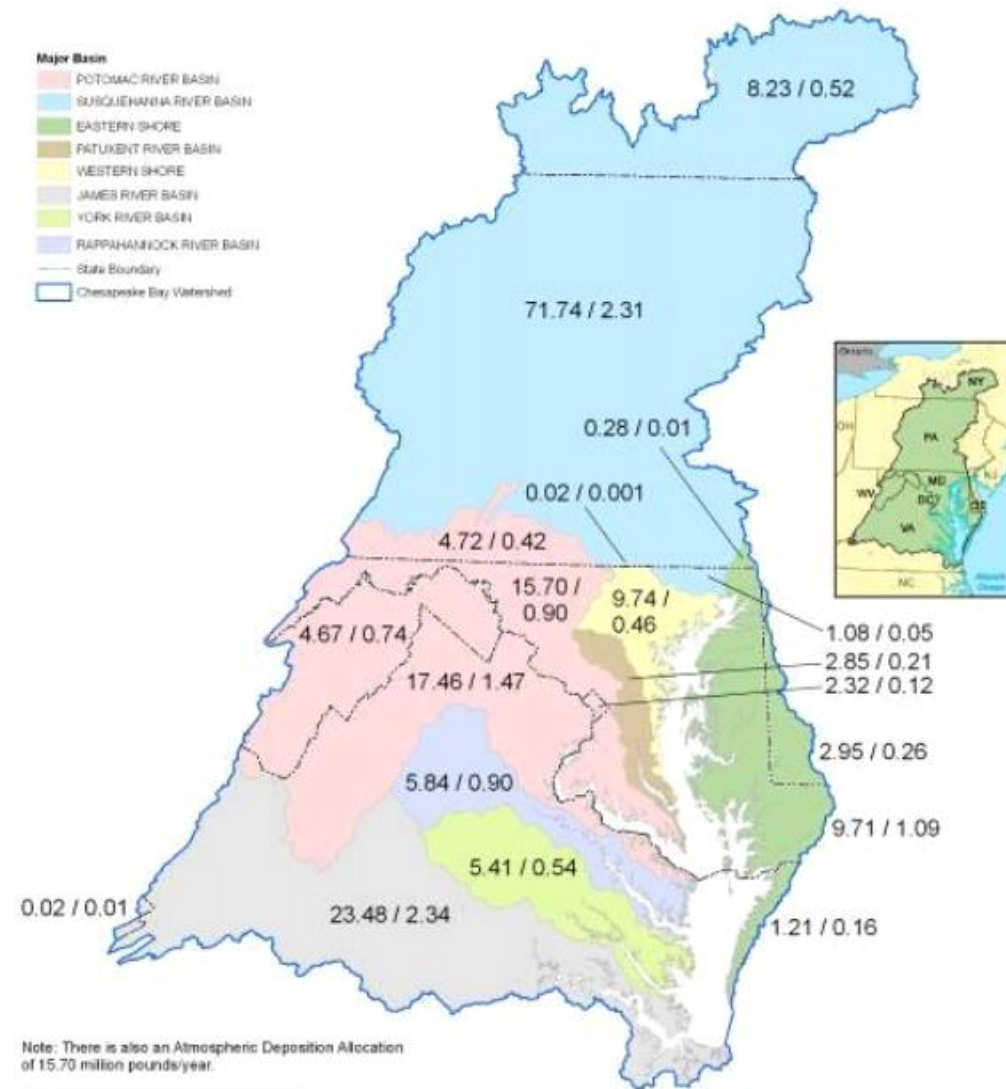


IMPLICATIONS:

New loads must be offset, or more reductions needed



Planning Targets



Today



Phase III WIPs

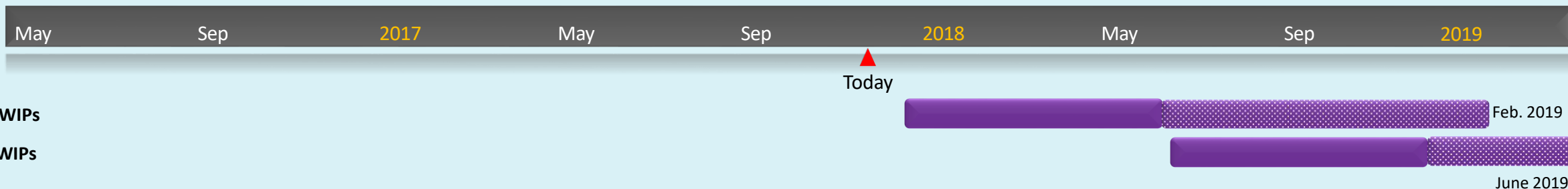
- Jurisdictional plans to get us from 2018-2025
- Based on Phase 6 Model & EPA expectations

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