

# Chesapeake Bay TMDL 2017 Midpoint Assessment: A Critical Path Forward

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# Today's Objectives

- Recap of key decisions in October and December 2012 by WQGIT and PSC
- Identification of strategic issues and timeline
- Overlapping schedules between midpoint assessment, management strategy development, and BMP verification
- Requests and future briefings for the PSC



**Where are we coming from and  
what have we been doing?**

# 2012 WQGIT F2F Meeting

- 
- WQGIT gathered input on midpoint assessment guiding principles and priorities starting in July 2012
  - Deliberated priorities on October 22-23, 2012
  - 9 Workgroups and STAR considered:
    - Do priorities address barriers to implementation?
    - How do the priorities align with the Guiding Principles?
    - Roughly speaking, how much of a difference would it make in load, expected reductions, or implementation decisions in each state?
    - Are there downsides to priority?
    - What would happen if this change were not made as part of the midpoint assessment?
  - **Outcome: Identification of high and other, lower priorities, and schedule and process for moving forward**



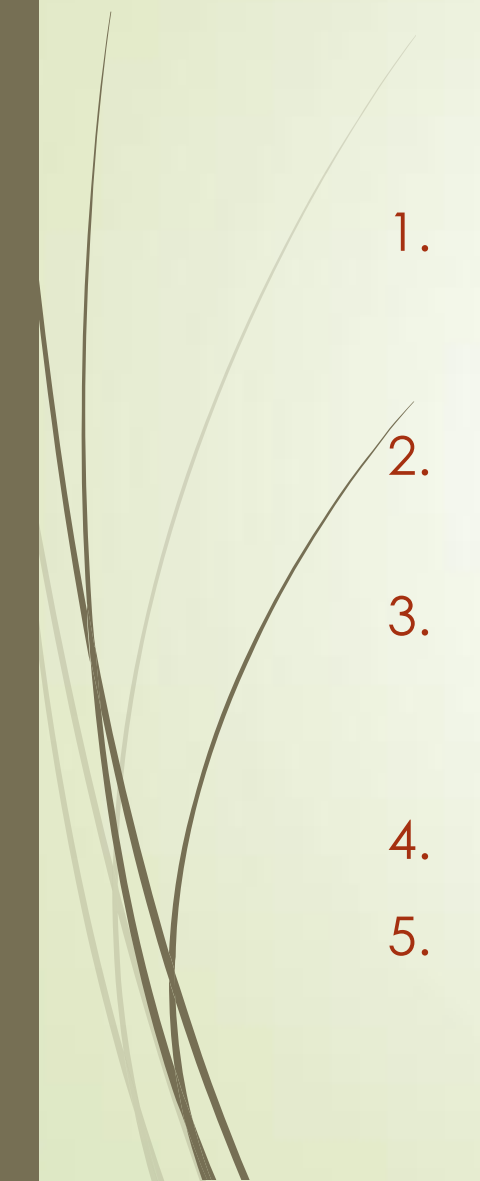
# Midpoint Assessment Priorities

- In October 2012, the WQGIT identified and approved specific priorities to address under the midpoint assessment, including:
  - Model refinements (e.g. Phase 6)
  - New land use classifications
  - Refine decision support tools for WIP implementation
  - Bring in analysis of monitoring trends to better represent progress to date





# Midpoint Assessment Guiding Principles

- 
1. Continue implementation, tracking progress and reporting results, with stable tools through at least 2017
  2. Enhance decision support and assessment tools to enable successful engagement of local partners
  3. Incorporate new or refined BMPs and verification of practices into existing accountability tools and reporting protocols
  4. Address emerging issues (e.g., climate change)
  5. Prioritize midpoint assessment actions and use adaptive management to ensure goals are met

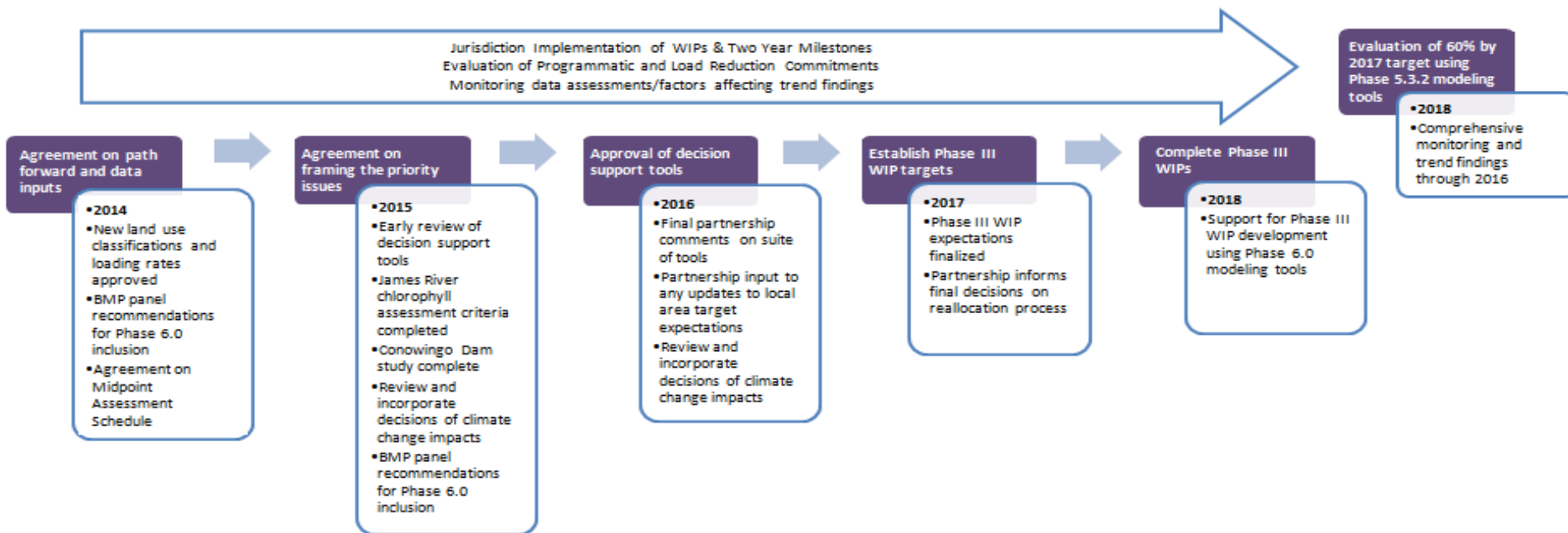
# PSC Decisions in December 2012

- Approval of midpoint assessment high-level priorities
  - Incorporate better model input data from local partners
  - Revisit model calibration and assumptions
  - Make CBP models more transparent
  - Adjust Phase III WIP deadlines to account for 60% by 2017 goal
  - BMP Panels and enhanced use of monitoring data
- Approval of midpoint assessment guiding principles
- Approval of overall midpoint assessment schedule

# Work Plan Development, Implementation & Timeline:

[http://www.chesapeakebay.net/groups/group/Water Quality Goal Implementation Team](http://www.chesapeakebay.net/groups/group/Water%20Quality%20Goal%20Implementation%20Team)


## Midpoint Assessment Timeline







# Bottom Line for Meeting 2025 Goal


- 
- Partnership needs to be able to engage local partners in order to get practices on the ground
  - Use midpoint assessment priorities to optimize implementation of WIPs to help achieve 2017 and 2025 goals
  - Changes to modeling inputs and assumptions will allow us to work with key partners
  - Healthy step in adaptive management process

A map of the Northeast United States, showing parts of Pennsylvania, Maryland, Virginia, and New Jersey. Major cities like Pittsburgh, Philadelphia, Baltimore, and Washington D.C. are labeled. A red arrow points from the left edge towards the center. Decorative thin brown lines are on the left side.

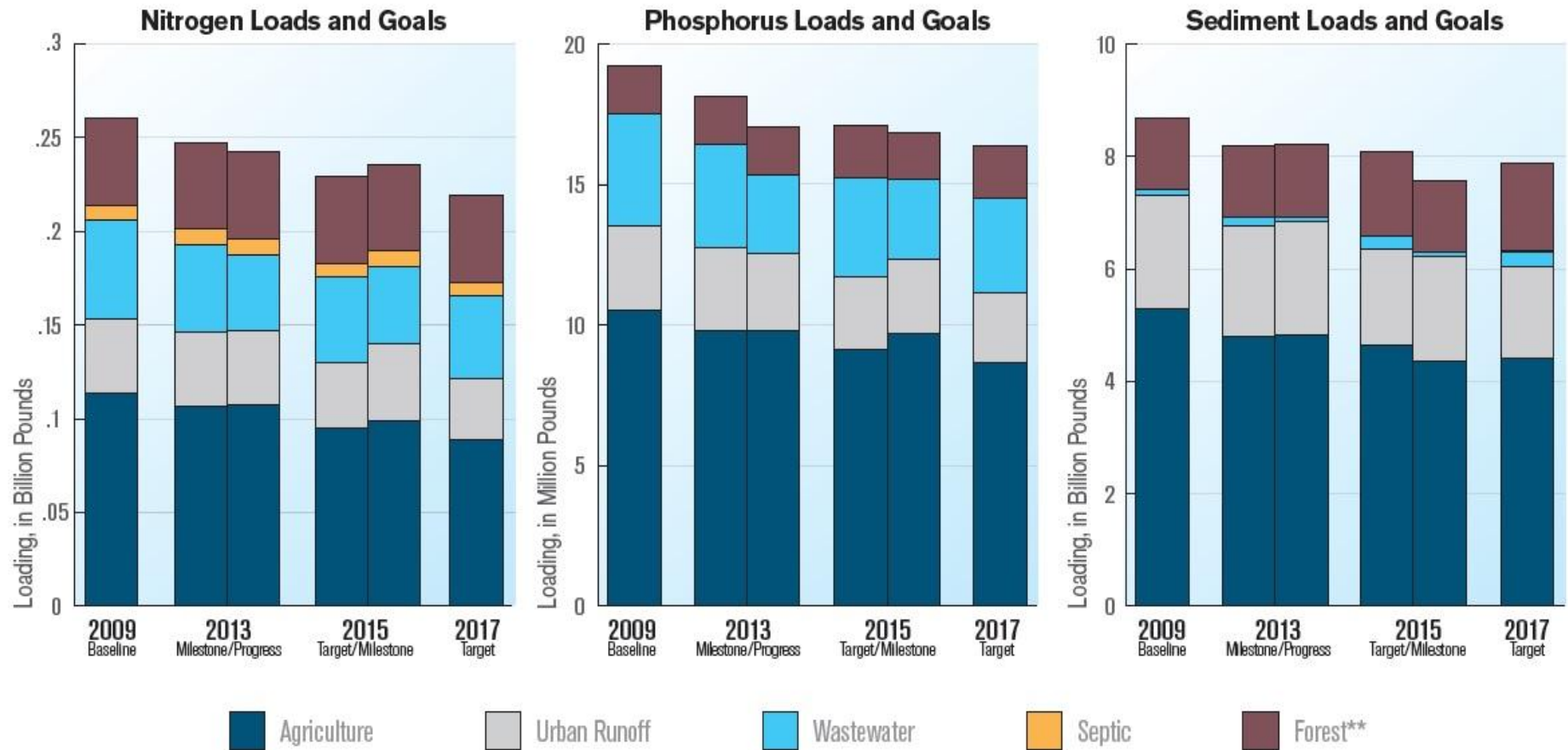
**Where are we now and where do we need to be?**



# WQGIT October F2F Meeting

- 
- Clear understanding of where we need to be by 2017 and what steps need to be taken, and by whom
  - Understand what information is needed from the midpoint assessment to inform evaluation of 60% by 2017 goal
  - Full buy in on midpoint assessment schedule and decision-making process

# Chesapeake Bay Watershed Pollutant Load Reductions & Targets

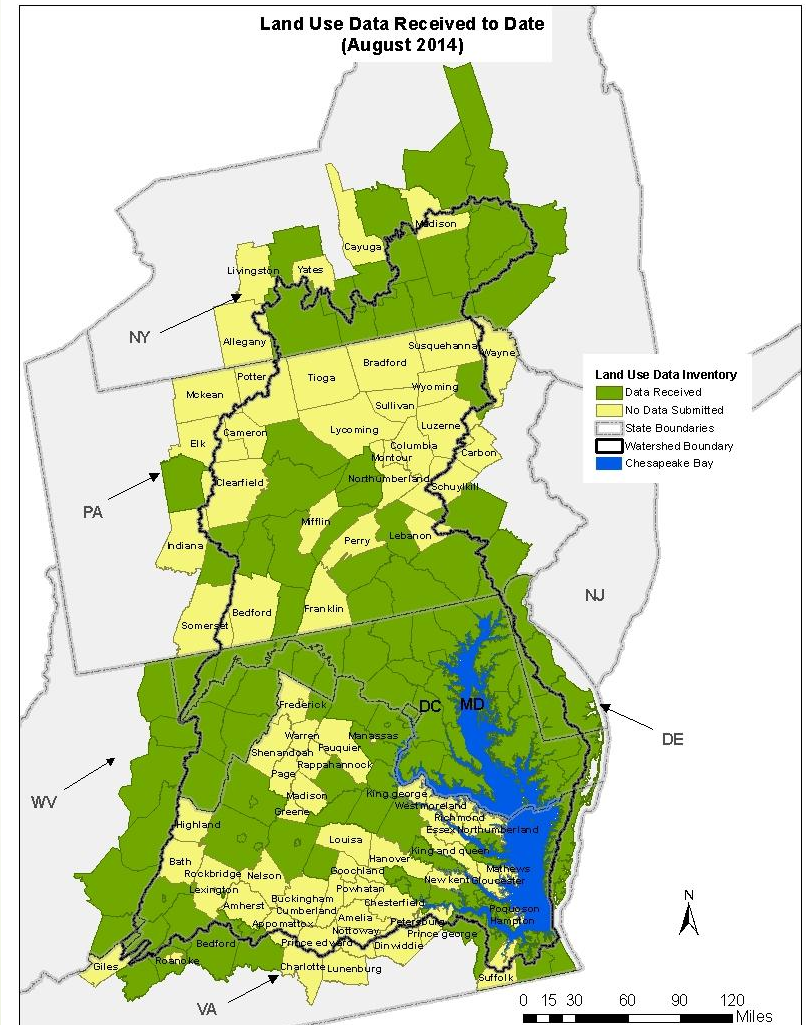


\*\* Forest includes other sources

Note: 2013 milestones and 2013 progress are based on 2010 conditions. For additional information on pollution reduction progress, commitments, and BMP see <http://stat.chesapeakebay.net/milestones>

## Strategic Issue: Land Use

- Develop new land use classifications & loading rates
- Refine modeling tools to get to a local scale that makes sense to each jurisdiction
- Greatly expand urban, natural, and ag land use classes
- **October 2014:** Approval of new land use classifications
- **Spring 2015:** Loading rates assigned for new land use classes
- **October 2015:** Final land uses & loading rates into Phase 6





# Strategic Issue: BMP Panels

- Crediting actions on the ground
- Incorporate BMP expert panel and workgroup recommendations into modeling tools
- Focus on adding BMPs and updating current BMPs to enhance evaluation of progress
- **October 2015:** Deadline for data inputs for initial calibration of Watershed Model; however, **panels ongoing through 2017 and beyond**

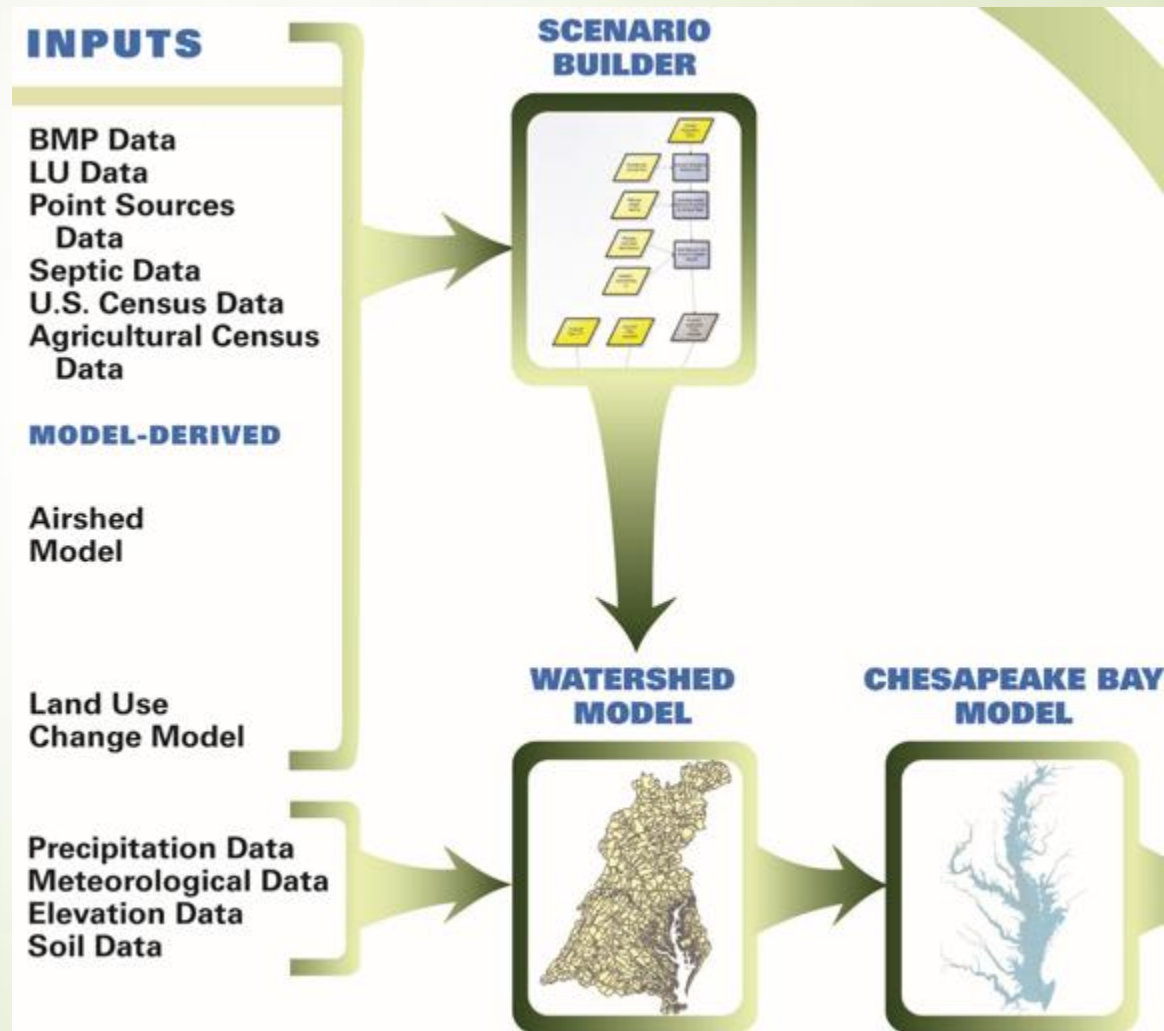
Cross-sector list of BMPs, as prioritized by workgroups		
Sector	Sector priority*	BMP(s) to be reviewed
Ag	N/A	Manure Treatment Technologies
Ag	1-1	Manure injection / Manure incorporation
Ag	1-2	Cropland Irrigation Management
Multi	N/A	Abandoned Mine Reclamation
Forestry	1	Urban Tree Canopy
Forestry	2	Forest Management
Stormwater	1	Impervious disconnection
Stormwater	2	Outfall stabilization
Stormwater	3	New bioretention designs w/ enhanced nutrient reduction features



# Strategic Issue:


## Phase 6 Decision Support Tools

- Enhance decision support tools to improve transparency, accuracy, and confidence
- **December 2015:** Draft Phase 6 Watershed Model complete, Partnership review begins
- **2016:** Partnership review, scenario runs and data inputs incorporated
- **December 2016:** All models final





# Strategic Issue: Monitoring & Explaining Trends

- Identify and measure trends of nutrients and sediment in the watershed, as well as trends of water quality in the estuary
  - Explain water quality changes and response to management practices
  - Trends and monitoring data to enhance partnership's modeling tools and inform WIPs
  - **2014 – 2017:** Measuring change through indicators; model enhancements; trend explanations and summaries
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# Strategic Issue: Conowingo

- Factor in additional nutrient and sediment loads given Conowingo Dam/Reservoir have reached dynamic equilibrium and are contributing to Bay water quality impacts
- **2014-2015:** Studies and monitoring underway for Conowingo Dam/Reservoir
- **2017:** Partnership decisions on offsetting effects of Conowingo




# Strategic Issue: Climate Change

- Update the partnership's decision support tools to reflect climate change considerations
- Current efforts: frame initial future climate-change scenario based on estimated 2050 conditions
- Options:
  - Fully incorporate considerations into Phase III WIPs
  - Defer application until after Phase III WIPs
  - Other possible options
- **Through 2016:** Climate change studies by CBP and partners
- **By December 2016:** Climate change considerations incorporated into Phase 6
- **2017:** Partnership decision on how and when to incorporate responses to climate change assessments (options above)



# Strategic Issue: James River

- Determine appropriate criteria in order to protect designated uses in the tidal James River
  - **December 2015:** James Chlorophyll-a criteria assessment complete, including STAC review and model scenarios
  - **2016:** Partners factor in VA's James Chlorophyll-a assessment findings; initiate evaluation of possible changes to allocations
  - **2017:** Complete regulatory review and WIP considerations
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# Strategic Issues: Phase III WIP Expectations & Planning Targets

- EPA provides expectations for scope and content of Phase III WIPs based on input from the partnership, and sets Phase III WIP planning targets
- Based on midpoint assessment and Phase III WIPs, modifications may be necessary to the Bay TMDL (early 2019)
- **Spring 2015:** early feedback from partners on WIP expectations
- **2016-2017:** EPA seeks feedback from partnership (GITs, MB, PSC) on Phase III WIP expectations
- **June 2017:** EPA provides expectations for scope of Phase III WIPs
- **Late 2017:** EPA sets Phase III WIP planning targets
- **Spring 2018:** Evaluate attainment of 60% by 2017 goal
- **June 2018 and December 2018:** Draft and final Phase III WIPs due, respectively



# PSC Requests & Future Briefings

- At the September 22, 2014 PSC meeting, the members requested a follow up briefing at their December 2014 meeting to include:
  - Short descriptions of major issues, timeframes, options, analyses, and implications for the partners (e.g. increased or decreased effort, minimal or no change of effort)
  - Illustrative descriptions of the relationship between the models and monitoring data
  - More information on explaining trends and role of the monitoring data trends in midpoint assessment
  - **Present a comprehensive midpoint assessment schedule with PSC review/decision points built in**

The background of the slide is a photograph of a large suspension bridge, likely the Chesapeake Bay Bridge-Tunnel, stretching across a body of water. The sun is setting in the distance, creating a warm, golden glow and reflecting on the water's surface. The bridge's steel structure and suspension cables are visible. On the left side of the image, there is a red arrow graphic pointing to the right, and some thin, dark, curved lines that resemble reeds or grass. The text "Thank you!" and "Questions?" is overlaid in the center-right area in a bold, blue, sans-serif font.

**Thank you!**  
**Questions?**