

# Overview from Co-chairs

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- ▶ Midpoint Assessment
  - ▶ WQGIT Presentation to PSC – December 2012
- ▶ Modeling Workgroup Priorities
- ▶ Schedule



# PSC: What is the Midpoint Assessment

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- ▶ Review and incorporation of the latest science, data, tools, BMPs and lessons-learned to determine whether Partnership's strategies will result in all practices in place by 2025 necessary to attain water quality standards in the Bay
- ▶ WQGIT recommends changes to modeling decision support tools...
- ▶ Findings from Midpoint Assessment may help jurisdictions prepare Phase III WIPs, which will guide milestones and implementation from 2018-2025
- ▶ With PSC endorsement, WQGIT will decide on specific priorities and work to be done as part of assessment



# PSC: Summary of High Level Priorities

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- ▶ Incorporate better model input data from local partners, particularly for current, historic and future land uses and their associated pollution loading rates
- ▶ Revisit model calibration methods and assumptions so modeling results better align with monitoring data
  - ▶ Includes accounting for decreased trapping capacity behind dams, though this is not just a modeling issue
- ▶ Make CBP models more transparent, easier to understand, and better decision-support tools



# PSC: Guiding Principles

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- ▶ 2. Enhance decision support and assessment tools to enable successful engagement of local partners
- ▶ Bottom Line for Meeting 2025 Goal
  - ▶ Partnership needs to be able to engage local partners in order to get practices on the ground
  - ▶ Current suite of modeling tools is pushing partners away
  - ▶ Changes to modeling inputs and assumptions will allow us to work with key partners
  - ▶ Healthy step in adaptive management process



# Modeling Workgroup Priorities

## ***Airshed Model***

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- ▶ Update Airshed Model to new CMAQ Bidirectional Ammonia Model

## ***Watershed Model***

- ▶ Revise Watershed Model system structure
- ▶ Revisit Watershed Model calibration methods, including regional factors

## ***Water Quality and Sediment Transport Model***

- ▶ Refine and update the Water Quality and Sediment Transport Model (WQSTM)
- ▶ Refinement of shallow water simulation for improved assessment of open water DO and SAV/clarity standards

## ***TMDL Charges***

- ▶ Effects of Conowingo infill on Chesapeake Bay WQS
- ▶ Examine the influence of climate change (CC) on Chesapeake WQ standards and the 2010 Bay TMDL
- ▶ Review James River chlorophyll criteria and James River TMDL allocations
- ▶ Influence of oyster filter feeders on water quality, with increased aquaculture and sanctuary development

## ***STAR Requests***

- ▶ Support needs of water quality goal team and TMDL Mid-point assessment support
- ▶ Assess and Explain Water Quality Trends
- ▶ Evolve to address other GIT needs including predicting ecosystem response to different management and environmental scenarios.

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- ▶ Work with Chesapeake Community Modeling Program (CCMP) to meet expanding needs

# 2015 – “Build”

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- ▶ **April** - Global method for landuse to be ready for April Quarterly and will be used in July P6 prototype 1. Land use categories are fixed and final for Phase 6 development
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  - ▶ **June** - Local landuse data completed. Review by local jurisdictions to begin June 1 and end July 1, and will be finalized in September. Local information to be used in September prototype (to be reviewed in the October quarterly)
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  - ▶ **July Quarterly** – Phase 6 Prototype 1
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  - ▶ **September 2015** - Agricultural land use should be near final by September 1 not expected to change over the next year because the Ag Census is fixed.
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  - ▶ **October Quarterly** – Phase 6 prototype 2
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  - ▶ **December 2015** - Phase 6 draft model will be completed by Dec 20 and prepared for the January quarterly review
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# 2016 – “Review”

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## ▶ **January 2016 – December 2016**

- ▶ Comment period begins. There will be a greater opportunity to address comments entered at earlier dates. Evaluation followed by fine tuning during the next year. Scoping scenarios will be available.
- ▶ Key scenarios
- ▶ STAC Review
- ▶ WQGIT Briefings
- ▶ Coordinating with WQGIT on more detailed schedule – Stay tuned!

## ▶ **Key Dates**

### ▶ **Quarterly Review**

#### ▶ **May 31, 2016**

- ▶ Conservancy landuse to be delivered but will need review. Because there is not enough time to review by September 2016 there will be an ongoing rolling review through the project. There will likely be increases to tree canopy and impervious cover

#### ▶ **September 2016**

- ▶ Final comments on the draft Phase 6 model

#### ▶ **December 2016**

- ▶ All models are final. The partnership decision-making process begins to discuss how these new models will be used in the WIP3 process



# 2017 – “Use the Models”

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- ▶ Continued involvement from the Modeling Workgroup to support Phase III WIP development
- ▶ Expect briefings and insights to support decision making
  - ▶ Factors affecting trends
  - ▶ Phosphorus
  - ▶ Climate change
  - ▶ Conowingo

