



STAC Workshop

Modeling in 2025 and beyond



Gary Shenk

CBPO

Modeling Workgroup

10/17/17



Chesapeake Bay Program

Science. Restoration. Partnership.



Goal of this presentation

- Announce the workshop to the modeling workgroup
- Get feedback from each jurisdiction on the representative that should be invited.

Goal of the workshop

- Arrive at recommendations for improvements in land use, watershed, and estuarine models
 - Meet management objectives
 - Evolution or revolution
 - Incorporate latest understanding
 - Structures must work together
- Workshop report to CBP
- Peer-reviewed publication

Cart before the horse?

- Arrive at recommendations for improvements in land use, watershed, and estuarine models
 - **Meet management objectives**
 - Evolution or revolution
 - Incorporate latest understanding
 - Structures must work together
- Workshop report to CBP
- Peer-reviewed publication

Phase 5 Development Schedule

- 1998 – Conceptualization begins
- 1999 – Coding begins
- 2003 – Phase 4.3 applied
- 2006 – CBP Partnership requests Phase 5
- 2010 – Phase 5 delivered

Phase 6 Development Schedule

- 2009 – Conceptualization begins
- 2010 – TMDL on Phase 5
- 2011 – Phase II WIPs on Phase 5
- 2011 – Coding begins
- 2012 – CBP asks for Phase 6
- 2013 – CBP asks for Phase 6 input changes
- 2017 – Phase 6 delivered

Structure of the workshop

- Prior to workshop
 - Background videos of modeling topics
- Day 1 – get participants up to speed
 - Management objectives
 - Existing CBP models
 - Inspiring talks
- Day 2 – Generation of recommendations in breakouts by model type
- Day 3 – review and combine recommendations

Breakouts

- Not dealing with model inputs – would require a much larger workshop
- 6-7 modelers or scientists
- 0-2 state representatives
- 0-2 “cross cutters” representing
 - Social science
 - Participatory modeling
 - Modularity
 - Uncertainty
 - ‘Nimbleness’

Breakouts - *No model inputs*

- Land change
- Watershed hydrology
- Watershed nitrogen
- Watershed phosphorus
- Watershed sediment
- Estuarine hydrodynamics
- Estuarine biogeochemistry
- Estuarine living resources

Logistics

- National Conservation Training Center
- January 17-19 (can arrive 16th evening)
- Cost ~ \$500 including lodging and all meals
- Space is limited to 60 participants. Encouraged to stay for all three days



Goal of this presentation

- Announce the workshop to the modeling workgroup
- Get feedback from each jurisdiction on state representative that should be invited