Modeling Work Group

Midpoint Assessment Priorities

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Modeling Workgroup MP Overview

- Priorities are the refinements the workgroup believes are needed in our modeling tools to best craft and develop the Phase III WIPs that will guide the final phase of implementation
- Touch on many Guiding Principles, but most align with 2 but also 4 and 5
- Priorities address barriers to implementation that occur when stakeholders don't accept model predictions at ***local*** scale
- Incremental improvement in tools that align with guiding principles, are based on improving science understanding and improve communication

Revisiting the Watershed Model calibration with the goal of improving local watershed results

- “Regional factors” – maybe another way
- Additional calibration data sources (e.g. new data and other models such as SPARROW)
- Alternative calibration methods
- Alternative data sources (ex. NLDAS rainfall)
- Communication critical – model version transitioning and explanation of regional differences

Incorporating the revised airshed model into the watershed and water quality modeling framework.

- Update topics - wet deposition, bi-directional ammonia, emissions/meteorology inputs, scenario libraries
- Improved communication
- Improved Integration of federal and State strategies

Refinements to the Water Quality Sediment Transport Model

- Model not performing well in some of shallows and embayments -requires post processing and complicates communication of loading needed to meet standards.
- Incorporation of fine scale models (ex. James chlorophyll)
- Other topics – estuarine wetlands, sediment diagenesis, filter feeder simulation

Extending the airshed, watershed and water quality sediment transport model simulation period

- More accurate near time load estimates
- Allows use of more recent watershed and estuary observed data in calibration

Revising the Partnership Model System Structure

- Separate operational and research models
- Increased efficiency to run/assess scenarios
- Flexibility to build upon scientific knowledge
- Improved estimation of small-scale processes and BMP effects.
- Improved communication

Develop and integrate technical tool revision and Phase III WIP schedules

- Effective balance of time for tool refinement and WIP III development
- Continuous (build upon) process or final formal review or both
- Current disconnect - 2017 progress after WIP IIIs developed
- Request EPA/WQGIT decision on Phase III timeline to finalize evaluation schedule

Engaging STAC

- Provide review assistance with revised models
- Coordination of climate change research and application in Bay program (Priority 4)