Watershed Technical Workgroup

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Model Integrity and Reliability

- The watershed and water quality transport models are calibrated to observed data through a period of 1985 to 2005
- Landuse and corresponding management practices are used together and the watershed model is calibrated to flow, concentration and loads
- Any change in management practice efficiency for practices applied during the calibration period have the potential to impact the reliability of future progress estimates.
- We recognize that not all management practices are “calibration drivers” but also recognize that many small changes can have large cumulative impacts

Recommendations from Modeling Workgroup to WQGIT

- April 14, 2014 in response to Erosion and Sediment Control expert panel
- Two Principles to follow
  - **Honor the panel recommendations as the accumulation of the best science** - The original intent of the expert panels review process was to make recommendations for the Phase 6 watershed model. The full recommendations of the panels should be honored in Phase 6, subject to approval by the partnership, availability of data, and feasibility of implementation.
  - **Ensure that we are modeling in a way that best measures real changes on the ground** - Changes made to the Phase 5.3.2 watershed model must be reflective of actual management activities on the ground and not simply accounting changes. The phase 5.3.2 watershed model and the estuarine water quality model are calibrated together and allow the partnership to estimate the change in loads that will be necessary to meet water quality standards. Therefore it is imperative that the implementation of panel recommendations in phase 5.3.2 best account for real changes on the ground that occur after the calibration period and are not simply accounting changes.

Why did the modeling workgroup recommend this?

- The partnership will be making many decisions on the application of Team, Workgroup, Subcommittee, and Panel findings in the next few years leading up to the 2017 Mid-Point Assessment.
- The Modeling Workgroup recommended strict adherence to these two principles to
  - provide stability between the accounting before and after the Mid-Point Assessment;
  - to promote partnership cooperation;
  - to deliver the best scientific information to the partnership as a basis for decisions and assessments;
  - to protect the integrity of the models;
  - to maintain focus on implementation of management practices;
  - to protect against the violation of water quality standards.
- In preparation for the midpoint assessment a recalibration will take place in 2016 where updated information will be included