WQGIT approval of Draft CBP Response to STAC Workshop Report: *Development of Climate Projections for Use in Chesapeake Bay Program Assessments*

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Chesapeake Bay Program
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2017 Midpoint Assessment
Climate Integration Decision Timeline

Key Partnership Actions/Decisions:

- **March 7-8, 2016:** STAC Workshop: *The Development of Climate Projections for Use in Chesapeake Bay Program Assessments*
- **Oct., 2016:** STAC Workshop Report Released and Recommendations and proposed climate change assessment procedures presented to CRWG and Modeling Workgroups, WQGIT and Management Board
- **Oct – Dec.:** WQGIT, Mgmt. Board and PSC approve proposed climate change assessment procedures and proposed range of options for when and how to factor climate change considerations into the jurisdictions Phase III WIPs with decisions in May 2017 to be informed by the outcomes of the approved climate change assessment procedures.
- **Jan. 13/17, 2017**: Climate Resiliency and Modeling Workgroups approve Draft CBP Response to STAC Workshop Report: *The Development of Climate Projections for Use in Chesapeake Bay Program Assessments*
- **Jan. 23, 2017:** Seek WQGIT approval of Draft CBP Response to STAC Workshop Report: *The Development of Climate Projections for Use in Chesapeake Bay Program Assessments*

STAC Workshop: *The Development of Climate Projections for Use in Chesapeake Bay Program Assessments*

Key Recommendations:

1. For the 2017 Midpoint Assessment, use historical (~100 years) trends to project precipitation to 2025 as opposed to utilizing an ensemble of future projections from GCMs. Shorter term climate change projections using GCMs have large uncertainties because climate models are structured to look further out and at much larger scales.

2. The Partnership should carefully consider the representation of evapotranspiration in Watershed Model calibration and scenarios, due to its strong influence on future water balance change.

3. For any 2050 assessment, use an ensemble or multiple global climate model approach, selecting model outputs that bound the range of key climate variables for the Chesapeake Bay region. Additionally, use multiple scenarios covering a range of projected emissions.

4. Select an existing system to access GCM downscaled scenario data in lieu of conducting a tailored statistical climate downscaling process for the Chesapeake Bay watershed.

5. Beyond the 2017 Midpoint Assessment, use 2050 projections for best management practice (BMP) design, efficiencies, effectiveness, selection, and performance – given that many of the BMPs implemented now could be in the ground beyond 2050.

6. Looking forward, the 2050 timeframe is more appropriate for selecting and incorporating a suite of global climate scenarios and simulations to provide long-term projections for the management community, and an ongoing adaptive process to incorporate climate change into decision-making as implementation moves forward.