

Outcome: By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll-a standards as articulated in the Chesapeake Bay TMDL document



Science needs:

- ➤ Exploration of alternative verification methodologies, including numerical values for credit duration
 - ➤ E.g., Currently being discussed through the partnership's BMP Verification Ad Hoc Action Team
- ➤ Greater understanding and application of social science to address implementation barriers and advance implementation
 - ➤ E.g., Social science strategy under development and other partnership efforts underway (e.g., upcoming STAC workshop on agricultural implementation and social science)
- ➤ Incorporating updated science and data for CAST 2021 and future versions of the model
 - > E.g., CAST 2021 Work Plan in place and guiding current updates



Science needs:

- ➤ Incorporation of monitoring and trends data into assessing progress towards outcome
 - > E.g., Continue the work of understanding drivers of trends and monitoring data to inform model updates and implementation targeting
- ➤ Quantification and integration of co-benefits into decision support tools to assist with planning and implementation
 - E.g., Build off the work completed by Tetra Tech and the Management Board (e.g., Co-benefit fact sheets for the Phase III WIPs)
- > Understanding climate resilient BMPs in Ag, Urban, and Natural sectors
 - > E.g., Climate synthesis underway (via STAC and NOAA) and Tetra Tech climate resiliency report



Science needs:

- > Shallow water modeling
 - > In addition, development of water quality criteria appropriate for shallow water
- > Updating partnership's suite of modeling tools for the 2035 climate assessment
 - ➤ Work completed for the 2025 climate assessment and work underway to understand and incorporate 2035 climate effects into modeling tools