Chesapeake Bay Watershed Agreement

II. Goal, Outcomes and Baseline

This management strategy identifies approaches for achieving the following goal and outcomes:

Climate Resiliency Goal

Increase the resiliency of the Chesapeake Bay watershed, including its living resources, habitats, public infrastructure and communities, to withstand adverse impacts from changing environmental and climate conditions.

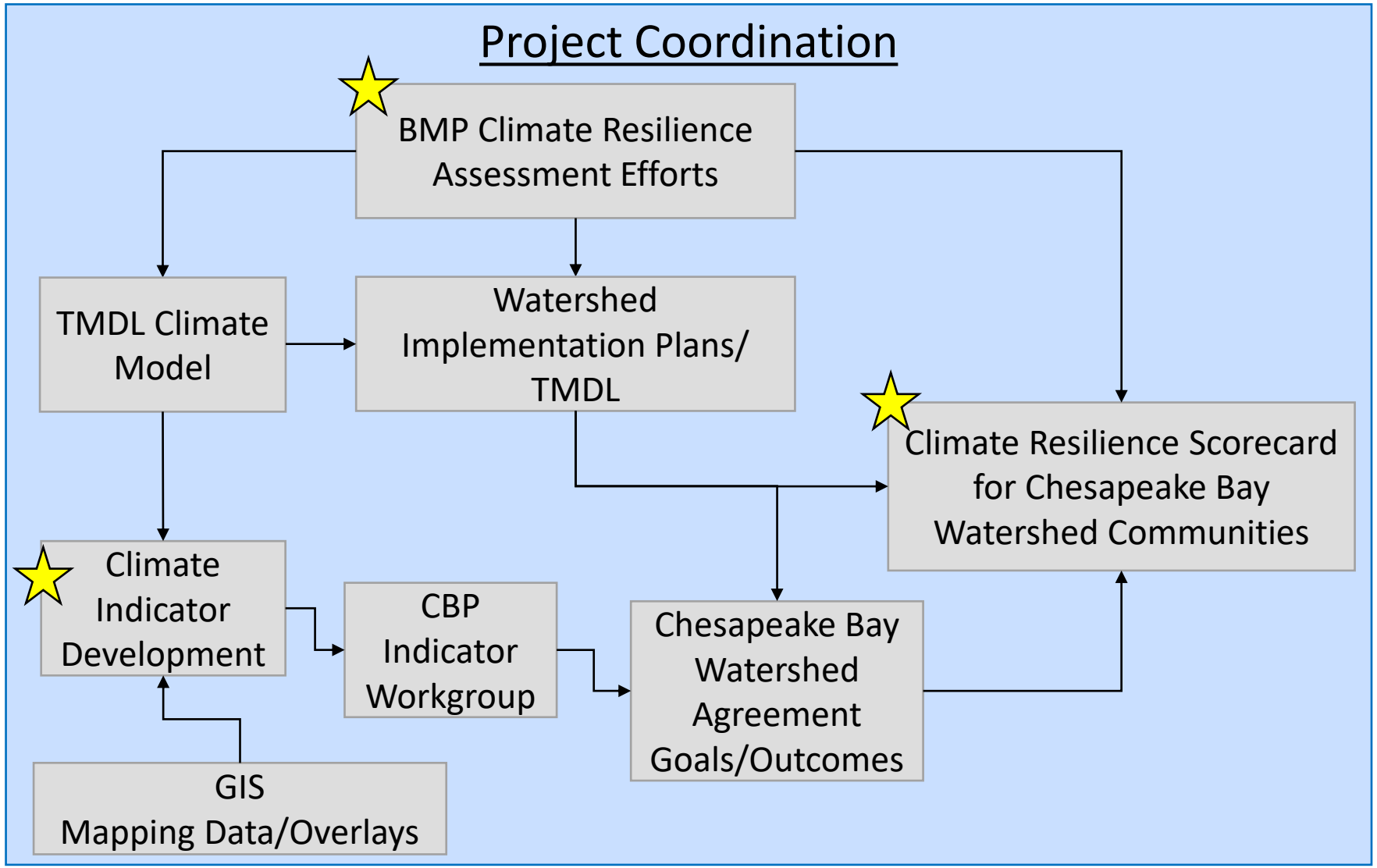
Monitoring and Assessment Outcome

Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.

Adaptation Outcome

Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.

Climate Resiliency Coordination



Support

- Climate Resiliency Workgroup
- STAR (Science/Research Needs)
- STAC (Science Review)
- GITS/ Workgroups
- Local Government Advisory Committee
- Local Engagement Team
- Modeling Team
- GIS Team
- Status and Trends Workgroup
- Partners
- Consultants
- Jurisdictions

Identify and coordinate who is doing what to support climate resiliency efforts

Workgroup Feedback Summarized

Physical Indicators (Signals of Change)

Change in Air Temperature (seasonal shifts)

Change in **Water Temperature** (Streams/Bay)

Change in Precipitation (Effects on dissolved oxygen, salinity, nutrient loadings, freshwater flow)

Sea Level Rise (Need finer spatial scale)

Ocean/Coastal Acidification

Impact Indicators (Ecological and Community Threats)

Habitat Quality

- Suitability for key fish (brook trout, forage fish, striped bass) and SAV species
- Fish, SAV, tree species abundance and distribution
- Pathogens/invasives
- Harmful algal blooms

Land-Use Change

- Population migration/increase in development
- Forest, wetland, marsh fragmentation/connectivity and loss/change in migration corridors

Seasonality/Phenology Shifts

- Summer abundance of forage fish
- Longer growing seasons (trees)
- Tree mortality from late-season "flash droughts"

Climate Resilience Indicators (Preparedness)

Conservation/Preservation

- Restore/protect critical habitat areas in climate resilient locations

BMP Implementation

- Temperature lowering BMPs (e.g., forest buffers) in high priority aquatic habitat areas
- Living/hardened shorelines

Species Diversity (Forests and SAV)

Behavior Change

- Shift planting schedules/change species
- Development plans allow for tree/marsh migration