Priority Project - Marsh Adaptation

January 3, 2025

Project Name	Advancing collaborative large-scale coastal marsh adaptation
Group Assigned	STAR/Climate Resiliency Workgroup
Task Description	Continue engagement with identified marsh adaptation focus areas to provide technical assistance to incorporate adaptation strategies to sea level rise and extreme storm events (e.g., marsh migration planning, sediment management, natural breakwaters, etc.) when planning, designing, and managing marsh restoration and protection projects. Technical assistance can be in the form of developing coastal marsh resilience plans, supporting geospatial climate, ecosystem, and social vulnerability assessments, and/or conducting landscape change analyses. Improved coordination and implementation of marsh adaptation projects will allow areas to maintain or prolong marsh ecosystem services benefits around water quality, habitat, living resources and community resilience under changing climate conditions.
Task Rationale	This priority action is an extension of work that was supported by the GIT-funded project, "Partnership-building and identification of collaborative tidal marsh adaptation projects," which was completed in August 2024. It also supports the Chesapeake Bay Trust's effort to develop a tidal wetland strategic plan for the Chesapeake Bay, which is a CBP action in the Executive Council Climate Change Directive Workplan. The deliverables from this proposed work will address several recommendations in the Beyond 2025 Phase 1 report, "A critical path forward for the Chesapeake Bay Program beyond 2025," including: ● Optimize monitoring, modeling, and analysis: integrating climate change projections to better understand changes across multiple indicators and inform strategic planning at the local and state level (small group: C1, C2, C3, C4, HW1, SW2). ● Integrating existing and new science findings in decision making, resource allocation, and communication strategies: improving access to information and cooperation among organizations to share data (small group: ERG F12, ERG C6, CW3, HW1). ● Prioritize research that addresses knowledge gaps in existing and emerging challenges: prioritizing climate science and research on land use (EC Charge) to enhance the partnership's understanding of these anticipated changes, and how conservation practices may respond (small group: C2, C3, C4, HW2, CW2, SW1, SW3). ● Support system-scale conservation and restoration planning and implementation for habitats and communities: planning for the restoration and conservation of nearshore habitats (CESR; small group: P2, SW1, SW4, C1). ● Improve the partnership's holistic approach to planning, progress-tracking and accountability: improving progress-tracking and accountability to further support efforts to adaptively manage, to better target and prioritize resources and to provide technical

	assistance and communication of outcomes (CW2 CW4; HW1; SW1, SW3, C1). ● Enhance communications and transparency to foster long-term success: prioritizing and improving communications and transparency to spur stewardship, drive restoration and conservation momentum and ensure long-term Chesapeake Bay Program efficacy (small group: (ERG C5, ERG C6; SW4) The GIT-funded project was designed to advance progress on the current climate adaptation outcome under the climate resiliency goal in the 2014 Chesapeake Bay Watershed Agreement, which aims to pursue, design, and construct protection and restoration projects to enhance the resiliency of Chesapeake Bay from coastal climate change impacts, such as sea level rise, extreme storm event, coastal erosion, and coastal flooding. During the GIT-funded project, six marsh adaptation focus areas in Maryland and Virginia were identified to target large-scale marsh protection and restoration projects. The marsh adaptation focus areas were identified by developing a mapper that integrated various GIS data on marsh condition and potential marsh migration corridors, future sea level rise projections, social vulnerability indices, and ecosystem and living resource metrics (hereinafter referred to as the Marsh Adaptation Mapper). Additionally, extensive input was collected from natural resources practitioners on areas of need for marsh adaptation when selecting the focus areas. The CRWG, in collaboration with the Wetlands Workgroup and the CBP GIS Team, is actively supporting three of the focus areas: Middle Peninsula, VA (hosted one-day workshop, small group meetings, and continuing engagement with the York River and Small Basins Habitat Restoration Steering Committee), Wicomico River/Deal Island, MD (hosted one-day workshop and follow-up activities with Audubon Marshes for Tomorrow), and Choptank R., MD (hosted one-day workshop with Envision the Choptank Advancing Large-Scale Restoration Working Group). There are three additional focus areas where engagement is of interest, but capacity is an issue. If additional support becomes available then there may be opportunities to expand the marsh adaptation work to these other areas. This priority action is needed to continue momentum in making resilience progress for nearshore coastal ecosystems and communities. It is also timely because focus areas have received BIL/IRA climate resiliency funding or are interested in developing a coastal marsh adaptation plan. Through continued engagement and using the marsh resilience, social vulnerability, and ecological indices in the marsh adaptation mapper, we will be able to be more strategic in building resilience for coastal marshes to preserve ecosystem services benefits.
Task Outcome/ "End" User	Support engagement opportunities and product development for organizations implementing coastal marsh protection and restoration projects to advance large-scale collaborative marsh adaptation in the identified focus areas.

Assignment (Objective)	Concisely lay out the step(s)/deliverables that are expected from the assignment 1. Development of summary materials on marsh adaptation framework, indices/metrics in marsh adaptation mapper, and recommendations from GIT-funded project and marsh adaptation focus area workshops. 2. Continue to support post-workshop engagement with Middle Peninsula, VA, Wicomico/Deal Island, MD, and Choptank R., MD marsh adaptation focus areas, including the identification of needed products (e.g., coastal wetland resilience plans, climate vulnerability assessments, technical assistance with proposals or design) to advance marsh adaptation in the region. 3. Integrate updates to Marsh Adaptation Mapper based on focus area feedback. 4. Creation of public-facing marsh adaptation mapper for ChesapeakeData. 5. Support follow-up meetings to help develop coastal marsh resilience plans and/or technical assistance for marsh adaptation project proposals or design plans. 6. If additional resources are obtained - landscape change analyses and additional workshops with other adaptation focus areas.
MB Champion:	Kevin Schabow
Coordination Requirements (MB check-in frequency)	Continue coordination with the Wetland Workgroup, CBP GIS Team, Land Use Workgroup, and Chesapeake Bay Trust. Check in every six months with the Management Board to report on project progress and have jurisdictions connect effort with their staff working on coastal marsh protection and restoration projects within marsh adaptation focus areas.
Delivery Date (Month or Quarter / Year)	Listing of deliverables and due dates. These may be longer term activities that extend beyond the B25 phase 2 charge: With existing resources: ● June 2025 - summary and communication materials for active marsh adaptation focus areas (based on needs of organizations in these areas implementing marsh protection and restoration projects). ● September 2025 - updates and launch of marsh adaptation mapper on ChesapeakeData. ● December 2025 - completion of Choptank River coastal wetland resilience plans. If additional resources are obtained: ● April 2026 - landscape change analyses. ● August 2026 - workshop report for an additional marsh adaptation focus area.
CBPO Support	Support from Habitat GIT/Wetlands Workgroup, CBP GIS Team, Land Use Workgroup, Forestry Workgroup, state agencies and nonprofits implementing coastal wetland protection and restoration. CRWG, in collaboration with the Wetlands Workgroup, submitted a proposal to the University of Michigan Master Students SEAS Program and it was selected. Four students and two professors will be supporting activities for three semesters from January 2025 to around April 2026.