



**Climate Resiliency Workgroup (CRWG) Logic and Action Plan: Post-Quarterly Progress Meeting**

**Climate Monitoring & Assessment and Climate Adaptation – 2023-2024**

*[NOTE: make sure to edit **pre-** or **post-** in the text above, to tell the reader whether this logic and action plan is in preparation for your quarterly progress meeting or has been updated based on discussion at the quarterly progress meeting.]*

**Long-term Target:** (the metric for success of Outcome)

**Two-year Target:** (increment of metric for success)

<b>Instructions:</b> Before your quarterly progress meeting, provide the status of individual actions in the table below using this color key.
Action has been completed or is moving forward as planned.
Action has encountered minor obstacles.
Action has not been taken or has encountered a serious barrier.

Additional instructions for completing or updating your logic and action plan can be found on [ChesapeakeDecisions](#).

Factor	Current Efforts	Gap	Actions	Metrics	Expected Response and Application	Learn/Adapt
<i>What is impacting our ability to achieve our outcome?</i>	<i>What current efforts are addressing this factor?</i>	<i>What further efforts or information are needed to fully address this factor?</i>	<i>What actions are essential (to help fill this gap) to achieve our outcome?</i>	<i>What will we measure or observe to determine progress in filling identified gap?</i>	<i>How and when do we expect these actions to address the identified gap? How might that affect our work going forward?</i>	<i>What did we learn from taking this action? How will this lesson impact our work?</i>
<b>Outcome: Monitoring &amp; Assessment</b>						
<b>Monitoring &amp; Assessment: Scientific Capabilities.</b> The scientific capabilities to estimate, project, model and monitor ecosystem changes and impacts as a result of climate change are complex and resource intensive. Additionally, impacts are exacerbated by non-climate stressors (e.g., land-subsidence, land use change, growth and development). Appropriate science and modeling of climate and non-climate related stressors are necessary for Chesapeake Bay Program partners to properly address climate impacts during policy	Development of climate change indicators on Chesapeake Progress ITAT Tidal Trends Analyses; Bay Trends Interactive Map Rising Water Temperature STAC Workshop Marsh Migration Model Synthesis Application of the climate change TMDL model	Need scientific capability to monitor and assess climate and other stressors simultaneously; need to ensure that long-term monitoring networks include key parameters to assess climate change impacts and coincide with monitoring other stressors when feasible; need to sustain and support long-term monitoring networks (e.g., CBP Monitoring Network, Sediment Elevation Table Marsh Studies);	1.1; 1.2; 1.3; 1.4; 1.5; 1.6; 1.7	Progress integrating available data in updating and refining prioritized climate change indicators - identification of data sources, development of methodologies, building partnerships with data providers and analysts.	Development of climate change indicators will depend on the quality of supporting data, the benefit of the indicators to help understand and explain natural resources management successes, and the priorities and resources of the CBP Partnership.  CRWG is focusing on the prioritized climate change indicators from discussions with the Management Board.	

<p>planning and adaptation efforts.</p>	<p>EPA Request for Applications to support BMP climate resilience research</p> <p>Multi-stressor/habitat risk analyses/ living resources research</p>	<p>need adequate downscaled climate modeling data and data to develop and test models; need continued efforts to understand thresholds of climate stressors on water quality, fisheries, and habitats, interaction of multiple stressors, and quantification of co-benefits.</p>				
<p><b>Monitoring &amp; Assessment: Geographic Extent/Variability of the Watershed.</b> The impacts of climate change will be varied across the watershed. It is important to not limit the focus of the management strategy to coastal issues alone but to recognize the wide range of monitoring, assessment and adaptation needs throughout the region. However, the variability of the ecosystem within the Bay proper and the larger watershed presents challenges in data consistency and</p>	<p>Scientific data collection by jurisdictions, USGS, NOAA, and other organizations</p> <p>Healthy Watersheds climate vulnerability metrics</p> <p>VIMS marsh migration model comparisons and decision framework to address variability</p>	<p>Need methods aimed to improve data consistency and comparability among regions and sectors.</p>	<p>1.2; 1.4; 1.5; 1.6</p>	<p>To be determined through cross-workgroup discussions.</p>	<p>The CRWG does not have adequate resources to simultaneously address both Bay and watershed climate change needs. Currently, there are resources for coastal marshes. The workgroup plans to provide advisory support for watershed-related GIT-funded projects. Overarching partnership support is needed to address this factor.</p>	

comparability among regions and sectors.						
<p><b>Monitoring &amp; Assessment: Complexity of the Monitoring Program.</b> A monitoring program to detect ecosystem change and inform program and project response is a complex undertaking. Developing an acceptable monitoring approach for the watershed will be complex, and there are clear budgetary challenges associated with such long-term monitoring.</p>	<p>Data collected by NOAA, USGS, CBP Monitoring Network, and jurisdictions.</p> <p>Completion of, “Enhancing the Chesapeake Bay Program Monitoring Networks: A Report to the Principals’ Staff Committee.” Outlines various climate-related monitoring and assessment needs.</p>	<p>Need to identify and connect climate resilience science needs for adaptation decision-making with monitoring needs; need institution capacity to develop and perform long-term monitoring to detect ecosystem change and a steady funding source for such efforts; need to evaluate alternative monitoring strategies, such as use of satellite data.</p>	1.7; 2.5	To be determined through cross-workgroup discussions.	Identification and eventual implementation of long-term monitoring of parameters associated with climate change-related stressors and impacts of concern.	
<b>Outcome: Adaptation</b>						
<p><b>Adaptation: Stakeholder Engagement.</b> Although there is acknowledgement that climate change and adaptation need to be addressed, there is a lack of understanding or agreement from stakeholders on what it means to be resilient or what constitutes resiliency, including what kind of actions support</p>	<p>Marsh Adaptation Project</p> <p>Collaborations with Strategic Engagement Team to connect climate science and resilience projects with stakeholders.</p>	<p>Need collective agreement; need better understanding of stakeholder climate resilience and adaptation decision-making needs; need facilitation in connecting the science across the different stakeholder groups to support decision-</p>	2.1; 2.2; 2.3	Increase in activities that engage with different stakeholder groups in climate resilience and adaptation discussions resulting in the application of climate science	Continuous - the incorporation of stakeholder input and needs around changing climate conditions helps align science application in supporting adaptation efforts.	

<p>an adaptive management approach. Lack of appropriate stakeholder engagement jeopardizes acceptance of choices made about action plans and implementation strategies, introducing additional levels of social discord in an already complex environmental-economic-social landscape. There are also different types of stakeholders, and in many cases, they have different goals making it challenging to have adequate resources to facilitate meaningful connections across all stakeholder groups.</p>	<p>Local Government Advisory Committee climate resilience-focused forum topics.</p>	<p>making; need stakeholder support in implementing recommendations; need willingness to discuss managed retreat as an option.</p>		<p>in decision-making.</p>		
<p><b>Adaptation: Capacity.</b> There is a general lack of capacity to fill research gaps and translate the science and incorporate meaningful change into plans, programs, processes or projects across the entire CBP partnership. Although building that capacity is paramount, it can be time consuming and costly, considering the resource constraints faced by governments</p>	<p>Marsh Adaptation Project  Climate Resiliency Workgroup meetings and advisory support on projects.</p>	<p>Knowledge of types of technical assistance/expertise needed by jurisdictions.  Guidance on how to strengthen project proposals for funding.  Technical experts to incorporate climate change science in project design.</p>	<p>2.2; 2.4; 2.5; 2.6</p>	<p>Increase in technical experts assisting with project proposals, design, and implementation.  Increased success in getting resilience research and restoration projects funded.</p>	<p>We need increases in people/staff working directly on climate change initiatives to adequately address this gap. While there has been an increase in funding for restoration under resilience themes, there is a shortage in people that can prepare the grant proposals and</p>	

and organizations and the variability in adaptation approaches.					manage and implement the projects.	
<b>Adaptation: Authority.</b> Governments and institutions' ability to respond to climate change is also limited by legislative, policy, regulatory and other authorities.	Individual jurisdictional incorporation of climate narrative (or voluntary numerical target) into Watershed Implementation Plans.  States and communities around the Chesapeake Bay are taking steps to prepare or maintain their climate change adaptation or sustainability plans.	Need knowledge of institutional/regulatory barriers; need incorporation of climate change considerations across programs.	1.4; 2.7	Increase use of climate change science to inform legislative, policy, regulatory, and other authorities.	This factor is outside the capacity of the CRWG. Addressing this factor will rely on the entire CBP Partnership.	
<b>Adaptation: Guidance.</b> There is a need to translate existing science into guidance for the CBP, as well as stakeholders, for use in developing adaptation plans and measuring the efficacy of response to climate change impacts. The nature of on-the-ground implementation often requires a level of	Ongoing research and models, tools and metric development by CBP partners.  Marsh Migration Data Synthesis project	Need development of clear tools and guidance to develop plans and assess efficacy of response; lack of extensive information (or information dissemination) on the costs of climate change impacts in specific areas, or the cost savings and	2.1; 2.3; 1.2	Increase in projects that result in guidance.	There is a continuous need for climate adaptation guidance.	

<p>certainty or methods to address uncertainty related to climate change effects on key factors (e.g., hydrology, water quality, temperature, precipitation, sea level rise, coastal erosion rates). Additionally, there is variability in institutional responses on how to address climate change impacts making it challenging to develop guidance that can be applied consistently across all watershed jurisdictions.</p>	<p>Marsh Resilience workshops (Sea Grant, EPA-ORD, Marsh Adaptation Project)</p>	<p>ecosystem benefits represented by specific mitigation or adaptation measures.</p>				
<p><b>Adaptation:</b> <b>Collaboration.</b> The many and diverse stakeholders and organizations that make up the Bay Program are a strength, but it also causes collaboration challenges that must be addressed in order to maximize resources and provide strategic adaptation approaches across the watershed.</p>	<p>The Climate Resiliency Workgroup meets monthly to discuss a variety of climate topics and provide a forum for information-sharing to encourage collaboration.</p> <p>Collaborative, cross-workgroup projects.</p>	<p>Need to achieve strategic collaboration across the other goals in the Chesapeake Bay Watershed Agreement that maximizes resources and connects science to inform decision-making; need consensus on strategic adaptation approaches that fit the impact and area of concern</p>	<p>2.4; 2.5; 2.6; 2.7</p>	<p>Bringing in new partners within the workgroup to expand perspectives and expertise in addressing the climate adaptation outcome.</p> <p>Increase in collaboration across workgroups.</p>	<p>There is a continuous need for adaptation collaboration.</p>	

Note: “Lead,” refers to a person that will coordinate and track progress on the action. “No lead identified,” indicates actions where we may not be able to make progress during the 2023-2024 time frame due to lack of capacity. “TBD” stands for “to be decided.”

Monitoring & Assessment Actions – 2023 - 2024						
Action #	Description	Performance Target(s)	Responsible Party (or Parties)/ Point of Contacts	Geographic Location	Expected Timeline	Progress Status
<b>Management Approach 1: Assess past and future trends of climate change in the Chesapeake Bay and watershed in connection with the goals in the Chesapeake Bay Watershed Agreement</b>						
1.1	Coordinate updates for prioritized climate change indicators on Chesapeake Progress	<p>a. Finish updates for the Average Air Temperature Change and Total Annual Precipitation Change climate indicators.</p> <p>b. Revise text on Chesapeake Progress to better align with current climate change indicator efforts.</p>	<p>a. Lead: Jamileh Soueidan (CRC/CRWG Staffer) Support: Kathryn Barnhart and Doug Bell (U.S. EPA/Status and Trends Workgroup); Lisa Bacanskas (U.S. EPA); Julie Reichert-Nguyen (NOAA/CRWG)</p> <p>b. Lead: Jamileh Soueidan (CRC/CRWG Staffer) Support: Julie Reichert-Nguyen (NOAA/CRWG); Status and Trends Workgroup</p>	a/b. Bay/ watershed- wide	a/b. Updating climate change indicators will rely on available data and assistance from data providers/ analysts from other agencies. These updates are expected to be finished by Summer 2023.	
1.2	Coordinate the development of prioritized climate change indicators in	a. Support cross-workgroup discussions to identify user case scenarios on how best to incorporate living resource-	a. Lead: Julie Reichert-Nguyen (NOAA/CRWG)	a/b. Bay-wide or place-based (depends on discussions)	a/b. CRWG plans to make progress on the development of	



	<p>connection with clear management objectives with corresponding workgroups and natural resource outcomes</p>	<p>related outcome needs (e.g., fish habitat, SAV) when developing the Bay Water Temperature Change climate change indicator. Meet with potential data providers/analysts (e.g., NOAA, ITAT) to assess feasibility of approaches and support to develop and maintain the indicator(s). Review and consider recommendations from the Rising Water Temperature STAC Workshop report.</p> <p>b. In coordination with Healthy Watersheds GIT, Brook Trout Workgroup, Stream Health Workgroup, and Forestry Workgroup, facilitate cross-workgroup discussions on a stream temperature climate change indicator related to climate resilience factors of interest (e.g., forest cover, brook trout habitat). Explore integration of the USGS's stream temperature compilation project and trends to support indicator development and potential options for climate change metrics that could be</p>	<p>Support: Jamileh Soueidan (CRC/CRWG staffer); Peter Tango (USGS/STAR); Breck Sullivan (USGS/STAR coordinator); Alex Gunnerson (CRC/STAR Staffer); Rebecca Murphy (UMCES/ITAT); Brooke Landry (MDNR/SAV Workgroup); Bruce Vogt (NOAA/Fisheries GIT); NOAA Climate Summer Intern</p> <p>b. Lead: No lead identified Support: Renee Thompson (USGS/Healthy Watersheds); Stephen Faulkner (USGS/Brook Trout Workgroup); Jamileh Soueidan (CRC/CRWG staffer); John Clune (USGS); Alison Santoro (MDNR/Stream Health Workgroup); Taylor Woods (USGS); August Goldfischer</p>		<p>1-2 climate change indicators during 2023-2024. Development of new indicators will depend on the quality of supporting data, cross-workgroup involvement, and the priorities and resources of the CBP Partnership.</p>	
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		incorporated in the Healthy Watersheds Assessment 2.0.	(CRC/STAR Staffer/Nontidal Network Workgroup)			
<b>Management Approach 2: Fill critical data and research gaps and improve understanding of climate change impacts and implications for selected outcomes in the Chesapeake Bay Watershed Agreement</b>						
1.3	Increase capacity to better understand sea level rise effects on coastal marsh habitats and their ecosystem services	<p>a. Review recommendations from the Habitat GIT’s FY20 GIT-funding project, “Synthesizing shoreline, sea level rise, and marsh migration data to inform wetland restoration targeting” and explore use of the synthesis product to inform decision-making for coastal adaptation projects (see action 2.2).</p> <p>b. In coordination with the Wetland Workgroup, facilitate discussions on methods to quantify current and projected coastal wetland losses from sea level rise and wetland gains from marsh migration and approaches being used to connect with ecosystem services (e.g., habitat for living resources of interest, shoreline protection, coastal flooding reduction). Invite researchers to present on relevant work to foster discussion</p>	<p>a. Lead: Julie Reichert-Nguyen (NOAA/CRWG) Support: Jamileh Soueidan (CRC/CRWG Staffer) Molly Mitchell (VIMS/CRWG); Nicole Carlozo (MDNR/CRWG); Contractor: Skeo</p> <p>b. Lead: No lead identified Support: Julie Reichert-Nguyen (NOAA/CRWG), Jamileh Soueidan (CRC/CRWG staffer); Alex Gunnerson (CRC/STAR Staffer); Joel Carr (USGS/CRWG); Neil Ganju (USGS); Labeeb Ahmed (USGS/GIS Team/CRWG); Peter Claggett (USGS/ Land</p>	<p>a. Placed-based coastal areas</p> <p>b. Bay/ watershed-wide or place-based (depends on methodology)</p>	<p>a. Winter 2023</p> <p>b. Depends on the availability of other workgroups and researchers. Discussions ongoing throughout FY23/24.</p>	

		and increase understanding on the state of science.	Use Workgroup); Wetland Workgroup; VIMS			
1.4	Coordinate with the Modeling Workgroup and the Water Quality Goal Implementation Team (WQGIT) to support the application of TMDL climate change projections	a. Provide advisory support to the Modeling Workgroup and Water Quality GIT on the application of the TMDL climate change model projections and any updates for 2025.	a. Lead: Mark Bennett (USGS/CRWG) Support: Lew Linker (EPA/ Modeling Workgroup), Jeremy Hanson (CRC/WQGIT); STAR and additional CRWG members to be identified later based on request	a. Bay/ watershed- wide	a. Depends on requests from Modeling Workgroup and Water Quality GIT.	
1.5	Improve understanding of best management practices (BMP) responses to climate change conditions	a. Provide advisory support on EPA Request for Applications (RFA) related to BMP climate resilience research. Supports action in the Executive Council Climate Change Directive Workplan.	a. Lead: No lead identified Support: Mark Bennett (USGS/CRWG); Julie Reichert-Nguyen (NOAA/CRWG); additional CRWG members to be identified later based on request WQGIT: Ed Dunne (DOEE), Jeremy Hanson (CRC), Lucinda Power (EPA); Modeling Workgroup: Lew Linker (U.S. EPA)	a. Bay/ watershed- wide	a. Depends on the timeline of RFA and requests from EPA.	

1.6	Increase capacity in understanding multiple climate and other co-occurring environmental stressors on living resources	<p>a. Assess a multi-stressor index for key fish species (e.g., striped bass) that includes marine heat waves and dissolved oxygen based on recommendations expressed during the Rising Water Temperature STAC workshop.</p> <p>b. Provide opportunities during workgroup meetings to increase understanding on the state of science related to the use of biological communities (e.g., inland fish, macroinvertebrates) and biodiversity metrics as indicators of resilience to climate change and land-use stressors. Invite researchers to present on relevant work.</p>	<p>a. Lead: Julie Reichert-Nguyen (NOAA/CRWG); Jamileh Soueidan (CRC/CRWG staffer) Support: Bruce Vogt (NCBO/Fisheries GIT) NOAA Chesapeake Bay Office; NOAA Satellite Office; Hypoxia Collaborative</p> <p>b. Lead: No lead identified Support: Jamileh Soueidan (CRC/CRWG staffer); Taylor Woods (USGS/CRWG); Kelly Maloney (USGS); August Goldfischer (CRC/STAR Staffer)</p>	<p>a. Bay-wide</p> <p>b. Watershed</p>	<p>a. FY23-FY24</p> <p>b. FY24</p>	
1.7	Explore opportunities to support long-term monitoring of habitats and aquatic resources to assess environmental and ecosystem changes to support future natural resource	<p>a. In coordination with the Integrated Monitoring Network Workgroup, support discussions with the SAV Workgroup, Fisheries GIT, and Habitat GIT to identify ecosystem, species, and environmental parameters, partners, sampling protocols, needed resources, optimal sites for a potential aquatic resources sentinel site monitoring program</p>	<p>a. Lead: Breck Sullivan (USGS/STAR) Support: Brooke Landry (MDNR/SAV Workgroup), Julie Reichert-Nguyen (NOAA/CRWG), and Peter Tango (USGS/STAR/Monitoring Workgroup), August</p>	<p>a. Chesapeake Bay</p>	<p>a. FY23-FY24</p>	

management decisions	for nearshore habitats in connection with natural resource management needs and climate change and other stressors. Identify research questions to seek funding to pilot monitoring concepts.	Goldfischer (CRC/STAR Staffer), Bruce Vogt (NOAA/Fisheries GIT), Habitat GIT-TBD			
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**Adaptation Actions – 2023 - 2024**

Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline	Progress Status
<b>Management Approach 1: Improve knowledge and capacity to implement and track priority adaptation actions in connection with the goals in the Chesapeake Bay Watershed Agreement</b>						
2.1	Support efforts in identifying strategies to track progress in enhancing resiliency of the Bay and aquatic ecosystems from climate change impacts and support discussions on setting goals for Chesapeake Bay beyond 2025.	a. Plan discussions during CRWG meetings on how to feasibly track progress on the Adaptation Outcome. Support outreach efforts to learn how partners (state, federal, local, NGOs, other CBP workgroups) are defining resiliency and measuring the efficacy of their programs/actions. Seek and invite researchers to present on approaches to quantify habitat and community resilience to climate change impacts. Connect with CBP’s strategic planning discussions for 2025 and beyond.	a. Lead: Jackie Specht (TNC/CRWG) Support: Julie Reichert-Nguyen (NOAA/CRWG), Jamileh Soueidan (CRC/CRWG staffer); STAR support-TBD; additional CRWG member support-TBD; academic and jurisdictional partners-TBD	a. Bay/watershed-wide	a. FY23-FY24	

		b. Support EPA ORD ROAR project - Climate Vulnerability and Natural Infrastructure Resilience Effectiveness Assessment (if funded).	b. Lead: Julie Reichert-Nguyen (NOAA/CRWG) and Kyle Buck (EPA ORD) Support: NOAA Chesapeake Bay Office and NOAA National Center for Coastal Ocean Science	b. TBD	b. If funded, start of project would likely be Summer 2023 and go until Summer 2025	
2.2	Assist with capacity-building activities that support the implementation, pairing, and design of natural infrastructure projects that enhance the resiliency of the Bay and aquatic ecosystems from coastal climate change impacts	a. Continue supporting the GIT-funded Marsh Adaptation Project: 1) Synthesize and promote use of common resilience and social vulnerability metrics for selecting marsh restoration locations and measuring success and 2) build partnerships to pursue marsh restoration and research projects under the influx of resiliency funding through alignment of priorities. Supports action in the Executive Council Climate Change Directive Workplan.	a. Lead: Nicole Carlozo (MDNR/CRWG) and Julie Reichert-Nguyen (NOAA/CRWG) Support: Jackie Specht (TNC/CRWG); Taryn Sudol (MD Sea Grant/CRWG); Jamileh Soueidan (CRC/CRWG staffer); Alex Gunnerson (CRC/STAR staffer); John Wolf and Coral Howe (USGS/CBP GIS Team); Contractor: Skeo	a. TBD - two regional focus areas (one in Maryland and one in Virginia)	a. Fall 2023	

		<p>b. Support discussions with stakeholders to understand their perspectives and needs related to siting and design criteria for natural infrastructure projects that incorporate climate resilience considerations (e.g., marsh migration). Build on information gathered from the Marsh Adaptation Project (see action 2.2a)</p>	<p>b. Lead: Julie Reichert-Nguyen (NOAA/CRWG) Support: Jamileh Soueidan (CRC/CRWG staffer); Jackie Specht (TNC/CRWG); additional CRWG members-TBD; Wetland and Forestry Workgroup-TBD</p>	<p>b. Bay-wide (coasts)</p>	<p>b. FY23-FY24</p>	
		<p>c. Provide advisory support and summarize lessons learned on the grant application process for projects identified through the CRWG’s GIT-funded Marsh Adaptation Project (see action 2.2a).</p>	<p>c. Lead: Julie Reichert-Nguyen (NOAA/CRWG) and Jamileh Soueidan (CRC/CRWG Staffer) Support: CRWG members-TBD</p>	<p>c. Maryland and/or Virginia</p>	<p>c. FY24</p>	
<p><b>Management Approach 2: Undertake public and stakeholder engagement to increase understanding of climate change impacts to inform and support adaptation</b></p>						
2.3	<p>Coordinate with the CBP Strategic Engagement Team to help connect the CRWG science support activities with community</p>	<p>a. Invite representatives from the Local Government Advisory Committee to present on recommendations from the Local Government Forum: Integrating Resilience into Local Planning. Discuss and identify potential</p>	<p>a. Lead: Jamileh Soueidan (CRC/CRWG staffer) Support: Jackie Specht (TNC/CRWG); Jennifer Starr (Alliance for the</p>	<p>N/A</p>	<p>a. FY23</p>	

	resiliency and stakeholder needs	<p>activities that CRWG could support.</p> <p>b. Review recommendations from the FY20 GIT-funded project, “Chesapeake Bay Program Social Science Assessment and Integration Road Map Development” and determine any follow-up actions.</p> <p>c. Consolidate blue carbon crediting/science needs review into a shareable document that can be distributed to interested stakeholders.</p>	<p>Chesapeake Bay/LGAC); additional CRWG members-TBD</p> <p>b. Lead: No lead identified GIT Project Lead: Amy Handen (UMCES) Support: August Goldfischer (CRC STAR staffer); CRWG members-TBD</p> <p>c. Lead: Alex Gunnerson (CRC/STAR Staffer), Julie Reichert-Nguyen (NOAA/CRWG), Molly Mitchell (VIMS/CRWG), Jackie Specht, (TNC/CRWG)</p>		<p>b. Coordinate with GIT Lead</p> <p>c. FY23</p>	
<b>Management Approach 3: Address the institutional capacity of the Chesapeake Bay Program to prepare for and respond to climate change</b>						
2.4	Consult on cross-GIT climate change projects	a. Forestry Workgroup’s FY22 GIT-Funded project, “Optimizing Riparian Forest Buffer Implementation for climate adaptation and resilience.”	a. POC: Katie Brownson (USFS/Forestry Workgroup/CRWG) Support: Jamileh Soueidan		FY23-FY24	



		<p>b. Stream Health Workgroup’s FY22 GIT-Funded project, “Literature Review: Building Climate Resilience in Stream Restoration Practices.”</p> <p>c. SAV Workgroup’s FY22 GIT-Funded project, “Determining the local effect of flow/stormwater runoff on SAV density and acreage and options for targeting watershed BMPs that protect priority SAV areas.”</p>	<p>(CRC/CRWG Staffer); additional CRWG members-TBD</p> <p>b. POC: Alison Santoro (Stream Health Workgroup) Support: TBD based on any requests</p> <p>c. POC: Brooke Landry (MDNR/SAV Workgroup) Support: Julie Reichert-Nguyen (NOAA/CRWG); additional CRWG members-TBD</p>			
2.5	Utilize the Chesapeake Bay Program’s SRS process to conduct a biennial review of the Climate Resiliency Workgroup and assess priorities and identify science needs	a. Develop a workgroup charter that describes the workgroup’s role, membership contributions, participation benefits, and operating principles – how best the workgroup can support climate resilience outcomes and other workgroup outcomes within the watershed and member organizations. Include an approach to prioritize climate-related requests from the CBP workgroups for CRWG assistance.	a/b. Lead: Julie Reichert-Nguyen (NOAA/CRWG) and Jamileh Soueidan (CRC/CRWG Staffer) Support: Mark Bennett (USGS/CRWG); Jackie Specht (TNC/CRWG); Breck Sullivan (USGS/STAR)	Bay/watershed-wide	a. Summer 2023	

		<p>b. SRS Support – Develop Climate Resiliency Workgroup logic and action table and update management strategies and appendix of partnership climate resilience efforts. Supports action in the Executive Council Climate Change Directive Workplan.</p> <p>c. Document high priority science needs to disseminate among groups in the Chesapeake Bay Program’s Science Needs database. Identify follow-up actions on how the CRWG can support the science recommendations from the Rising Water Temperature STAC workshop and the BMP Climate Uncertainty report.</p> <p>d. Evaluate workgroup’s role in supporting ocean acidification and blue carbon/carbon sequestration monitoring and assessment needs, in coordination with STAR (refer to</p>	<p>c. Lead: Jamileh Soueidan (CRC/CRWG staffer) Support: Julie Reichert Nguyen (NOAA/CRWG); Alex Gunnerson and August Goldfischer (CRC/STAR staffers); Katie Brownson (USDA/Forestry Workgroup); Jeremy Hanson (CRC/WQGIT); Breck Sullivan (USGS/STAR)</p> <p>d. Lead: No lead identified Support: Breck Sullivan (USGS/STAR); Alex Gunnerson and</p>		<p>b. Ongoing</p> <p>c. FY23</p> <p>d. FY23-FY24</p>	
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		Enhancing the Chesapeake Bay Program Monitoring Networks report to the PSC).	August Goldfischer (CRC/STAR staffers)			
2.6	CRWG membership, meetings, and website	<p>a. Distribute survey to workgroup members to understand their climate related interests and expertise to identify opportunities and gaps in membership to support the Monitoring and Assessment and Adaptation Outcomes and cross-workgroup climate-related projects.</p> <p>b. Identify gaps and develop strategy and seek to fill missing jurisdictional representation and expand workgroup membership to support activities that align with resiliency funding opportunities.</p> <p>c. Organize and facilitate CRWG meetings. Work with members to identify presenters and determine the structure of meetings (cross-workgroup, topical, informational, discussion)</p>	<p>a. Lead: Jamileh Soueidan (CRC/CRWG) Support: Julie Reichert-Nguyen (NOAA/CRWG); Mark Bennett (USGS/CRWG); Jackie Specht (TNC/CRWG)</p> <p>b. Lead: Julie Reichert-Nguyen (NOAA/CRWG) and Jamileh Soueidan (CRC/CRWG) Support: Mark Bennett (USGS/CRWG); Jackie Specht (TNC/CRWG); Alex Gunnerson (CRC/STAR staffer)</p> <p>c. Lead: Julie Reichert-Nguyen (NOAA/CRWG) and Jamileh Soueidan (CRC/CRWG)</p>	N/A	<p>a. Winter 2023</p> <p>b. FY23</p> <p>c. Ongoing</p>	

		<p>to effectively make progress on CRWG actions identified in this workplan. Explore opportunities to allow for space for other relevant resiliency topics (e.g., ghost forests/forest loss, marsh migration tradeoffs, benefits of living shorelines versus hardened shorelines, equitable adaptation) in collaboration with respective GITs/workgroups.</p> <p>d. Update Climate Resiliency Workgroup’s website</p>	<p>Support: Alex Gunnerson and August Goldfischer (STAR staffers)</p> <p>d. Lead: Jamileh Soueidan (CRC/CRWG) Support: Julie Reichert-Nguyen (NOAA/CRWG)</p>					d. FY23
2.7	<p>Prepare for new federal and state climate initiatives and emerging issues related to the Chesapeake Bay climate resilience needs</p>	<p>a. Work with STAR to identify five nearshore, shallow water environments for assessing applied resources to implement recommendations from the Comprehensive Evaluation of System Response (CESR) STAC report in connection with nearshore vulnerability and climate resilience efforts.</p>	<p>a. Lead: Breck Sullivan (USGS/STAR) Support: Julie Reichert-Nguyen (NOAA/CRWG); Bruce Vogt (NOAA); Jamileh Soueidan (CRC/CRWG); CRWG members-TBD; STAR Support</p>	a. Bay-wide (coastal)	a. FY23-FY24			