Discussion: Cross-workgroup Living Resource and Climate Resiliency Actions

January 18, 2023
Climate Resiliency Workgroup Meeting

Climate Resiliency Workgroup

- Science support workgroup under the Scientific Assessment Technical and Reporting (STAR) team
- Responsible for the Climate Monitoring and Assessment and Climate Adaptation Outcomes in the Chesapeake Bay Watershed Agreement

Cross-Workgroup Support:

- Host cross-cutting climate themed meetings (e.g., living resources and climate resiliency topics)
  - Devote meeting time and staff support to organize meetings, seek and invite researchers, facilitate discussions
- Connect climate resilience experts to sit on steering committees
- Assist with developing project ideas and pursue funding opportunities
- Facilitate discussions to identify climate change science needs
  - Assist with synthesis of existing information and identification of research gaps

Survey Question: Are there any other climate resilience activities you or your organization are particularly interested in that you would like the Climate Resiliency Workgroup to consider in their workplan?

General Themes from Responses:

- Including actions that address climate impacts to head water streams and forests
  - Explore adaptation needs in headwater streams and buffers with particular focus on defining appropriate conservation buffers.
- Supporting FY22 GIT-Funding projects
  - E.g., FY22 GIT-funded project "Optimizing Riparian Forest Buffer (RFB) implementation for climate adaptation and resilience"
- Including actions that focus on Submerged Aquatic Vegetation
- Addressing sunny-day (or blue-sky) flooding
- Assist and inform governments as they make infrastructure and permitting decisions

New Climate-Related GIT-Funded Projects

- Water Quality GIT - Optimizing Riparian Forest Buffer Implementation for Climate Adaptation and Resilience
- Habitat GIT - Determining the local effect of flow/stormwater runoff on SAV density and acreage and options for targeting watershed BMPs that protect priority SAV areas
- Habitat GIT - Literature Review: Building Climate Resilience in Stream Restoration Practices
- Habitat GIT - Monitoring vegetation condition throughout the DelMarVa peninsula

Cross-Cutting Climate Change Themes Across Living Resource Outcomes

- New climate regime and managing changes in species distribution and composition
  - Connect with resilience metrics?

- Synthesis of datasets that assess habitat risk of living resources related to climate change trends

- Long-term monitoring for aquatic resources related to environmental change

Defining Resilience Effectiveness - Habitat and Living Resources

Action	Sub-action	Comment
2.1 Support efforts to identify approaches to track climate resilience activities and define resilience enhancement	a. Plan discussions during CRWG meetings on how the CRWG can feasibly track progress on the Adaptation Outcome.	
	b. Invite researchers to present on how they are quantifying resilience effectiveness in relation to habitat and community resilience.	

Marsh Adaptation Project

Action	Sub-action	Comment
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 to support 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.	

Tracking climate change - Healthy Watersheds, Stream Health, & Brook Trout

Action	Sub-action	Comment
1.2 Coordinate the development of prioritized climate change indicators in connection with clear management objectives with corresponding workgroups and natural resource outcomes	c. In coordination with Healthy Watersheds GIT, Brook Trout Workgroup, and Stream Health Workgroup, continue exploring collaborations with USGS to connect their stream temperature compilation project with updating the stream temperature change indicator. Assess use in the Healthy Watersheds Assessment related to brook trout habitat and stream health and the identification of potential resilience landscape and/or BMP factors.	

Tracking climate change - Submerged Aquatic Vegetation & Fisheries

Action	Sub-action	Comment
1.2 Coordinate the development of prioritized climate change indicators in connection with clear management objectives with corresponding workgroups and natural resource outcomes	a. Support cross-workgroup discussions to identify user case scenarios on how best to incorporate living resource-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).	
	b. Assess the inclusion of multiple stressor-type information for the Bay Temperature Change Indicator related to marine heat waves and dissolved oxygen based on recommendations and science needs expressed during the Rising Water Temperature STAC workshop.	