Priority Climate Science Needs

MANAGEMENT BOARD MEETING 7/18/24

BRECK SULLIVAN (USGS) – STAR COORDINATOR

AUGUST GOLDFISCHER (CRC) – STAR STAFFER

How should the partnership organize itself and resources to be more effective and strategic on climate work?

Background

Chesapeake Bay Program

Climate Change Directive—Workplan

July 5th, 2022

5. **Refine and prioritize climate science needs and develop a resource plan.** Climate science needs for each outcome of the *2014 Chesapeake Bay Watershed Agreement* have been identified through the Strategic Science and Research Framework (SSRF). Completing and addressing the climate science needs for all the outcomes will require stronger engagement and collaboration from our partners to evolve their work to match CBP needs. The Management Board will host special sessions with support from STAR to 1) improve understanding of each outcome's climate science needs, 2) update the status of engaged resources addressing those needs, 3) identify priority climate science needs 4) quantify required additional resources for addressing remaining gaps, 5) and develop a plan for how partner programs, expertise and resources could be further leveraged to address priority climate science needs. The partnership will present their committed efforts to support implementation of the resource plan. The SSRF will be used to document and track future climate science needs identified for the outcomes and present, on an annual basis, to the Management Board to follow through with identifying opportunities to better engage science providers who can address these needs.

Climate Science Needs MB Request

1) Concurrence on these priority climate science needs and how current efforts may support some of these needs.

2) Guidance on developing a resource plan

Priority Process

Goal Implementation Teams

- Sustainable Fisheries
- Habitat
- Water Quality
- Maintain Healthy Watersheds
- Fostering Chesapeake Stewardship
- Enhance Partnering, Leadership and Management

STAR Outreach to Outcomes

31 Outcomes -> 26* *Priority* Climate Science Needs

*Some Outcomes had the same climate science needs as another related Outcome, did not have a climate science need, or are still in the process of determining their priority climate science need

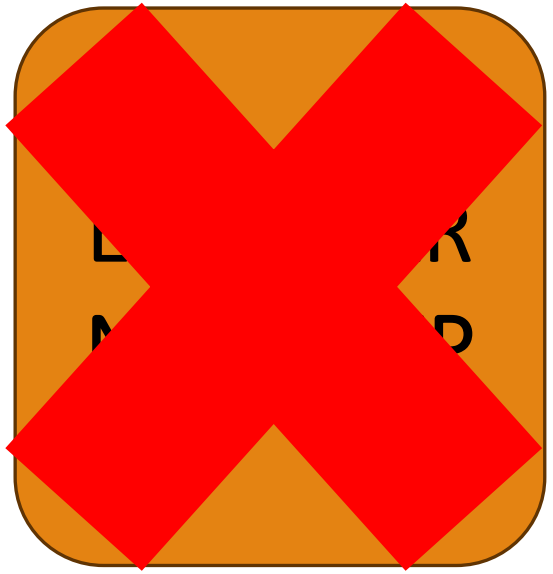
Efforts to Find Resources

EPA ROAR
NOAA RFP

Internships

Climate Resiliency WG Staffer

Efforts to Find Resources

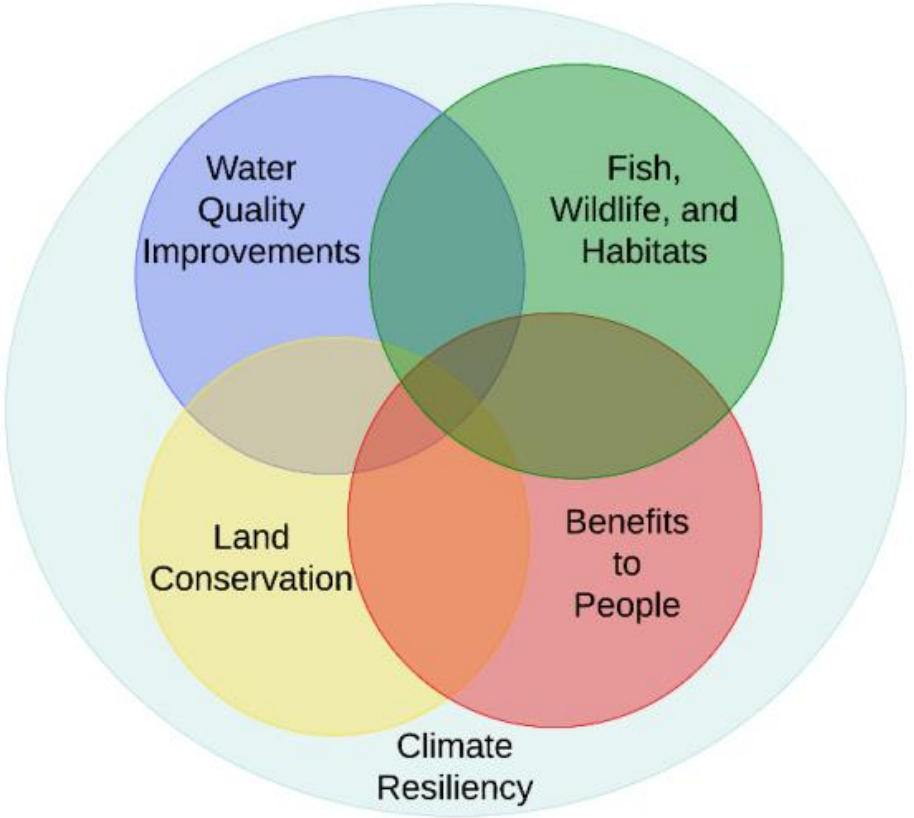


Internships

Climate Resiliency WG Staffer

Priority Climate Science Needs

- Benefit to People
- Water Quality Improvements
- Habitat for Fish and Wildlife
- Land Conservation



Benefit to People

Sustainable Schools: Research

- Conduct a review of existing resources that prioritize and give guidance on high-impact actions that schools can take to mitigate against climate change (Also synthesis).

Water Quality Improvements

Toxic Contaminants Policy & Prevention: Research/Synthesis

- Improved understanding of BMP effectiveness for removal of PCBs in a climate-impacted system. This has been expanded to include PFAS, and other prioritized toxic contaminants.

Habitat for Fish and Wildlife

Climate Monitoring and Assessment: Research

- Better understanding of the resilience effectiveness of natural infrastructure (e.g., living shorelines, marshes, forest buffers, oyster reefs) strategies to maintain/enhance ecosystem services to climate change impacts. Need better determination and quantification of associated benefits (e.g., habitat quality, shoreline protection) and potential unintended consequences to other restoration metrics (e.g, sediment dynamics), research on improving siting and design of natural infrastructure projects to maximize benefits, and cost-effectiveness analyses of these strategies under changing climate conditions. (Also Synthesis.)

Land Conservation

Land Use Options Evaluation: Synthesis

- Translate, format, package, and communicate LULC information and policy guidance to organizations and individuals trusted by local decisionmakers to inform a variety of policies and programs including land use and comprehensive plans, hazard mitigation and climate resiliency plans, as well as greenway, recreational and forestry management. Assess and communicate how observed land use changes are directly or indirectly due to climate change versus other factors.

Moving forward with the current approach will not adequately address the urgency of the climate crisis.

Climate Science Needs MB Request

1) Concurrence on these priority climate science needs and how current efforts may support some of these needs.

2) Guidance on developing a resource plan

Examples of Strategies for the Resource Plan

- How to better track what states are already doing?
- Establishing a long-term funding approach
- Establishing metrics of success for climate adaptation initiatives
- Elevating climate issues in the next round of GIT Funding
- Are there other opportunities to support these science needs that the MB knows about?
- Reoccurring MB agenda item to build out resource plan