



**Request for Proposals: STAC-Sponsored Science Synthesis Project
for the Chesapeake Bay Program Partnership**
**Chesapeake Bay Program's Scientific and Technical Advisory Committee
(STAC)**



I. Scope:

The Scientific and Technical Advisory Committee (STAC) provides scientific and technical guidance to the Chesapeake Bay Program (CBP) on matters related to the restoration and protection of the Chesapeake Bay. The Chesapeake Research Consortium (CRC) provides logistic and staff support for STAC via a cooperative agreement with the Environmental Protection Agency (EPA) that includes CBP-funded and STAC-sponsored science synthesis projects. The CRC is seeking proposals to conduct a STAC-sponsored science synthesis project related to effectively managing for climate change at the intersection of impacts to water quality, people, and living resources within the Chesapeake Bay Watershed and Estuary. Appropriate topics for a STAC-sponsored science synthesis project are those where a thoughtful analysis and synthesis of available data and/or previously published results would place scientific information into a management-relevant context and would identify, characterize, and suggest means of addressing important knowledge gaps to inform additional research for further understanding. Proposals should address how the synthesis work would contribute insights to support climate adaptation and risk-informed decision-making in the face of uncertainty. Proposals should also directly address how the project will further diversity, equity, inclusion, and justice (DEIJ) within the Chesapeake Bay Program research community. See the expanded DEIJ statement in Addendum A.

Appended to this RFP are Climate Science Needs identified by all Chesapeake Bay Program Outcomes, listed in Addendum B. This appendix is provided for information/context only. Some of the recommendations/needs in the attached may not be suitable for a science synthesis project as described in this RFP. Additionally, proposers are encouraged to refer to the Chesapeake Bay Program's [Science Needs Database](#) for further context and information on priority science needs.

The funded proposal will present the process/procedures that will be undertaken to conduct a thorough and thoughtful synthesis of available data and previously reported approaches, methods, and results related to some aspect of the focus areas mentioned previously. Science synthesis projects will result in a synthesis of the “state of the science” including characterizing knowledge gaps and research needs as related to the specific topic(s) being addressed and Chesapeake Bay restoration. Science synthesis project findings should guide STAC in providing informed recommendations to the CBP Partnership as they make policy decisions and implement management approaches for the purpose of protecting and restoring the Chesapeake Bay.

The CRC encourages leveraging synthesis funds to enhance and integrate existing projects and staff, as this approach has been a hallmark of previous successful efforts. This approach maximizes resource utilization and fosters strong collaborative ties within the CBP research community.

II. Project Format:

An example of a successful model for science synthesis projects includes substantial commitment of time and resources for an early-career professional (e.g., post-doctoral research scientist) dedicated to the science synthesis project and whose work is directed by a Steering Committee. Other models may be acceptable depending on the topic and scope of the proposed science synthesis project, but a Steering Committee is always required. Given the emphasis of this RFP on informing decision-making and improving inclusivity, the proposing group is expected to develop a translation and engagement

plan prior to beginning the project. This plan should outline strategies for effectively connecting the synthesis results with relevant managers and stakeholders throughout the project lifecycle. Findings should be not only accessible but also actionable, facilitating informed decision-making and integration into management practices. A commitment to early and ongoing consultation with relevant managers and community representatives is encouraged in order to maximize the utility of synthesis recommendations.

Typically, each Steering Committee will include 4 to 6 members with one Steering Committee member being a current STAC member¹ or STAC-approved designee. The Steering Committee will be led by one or more researchers currently active in a discipline directly related to the proposed science synthesis project topic. In addition, each Steering Committee should include at least one individual who has a history of specific interest and engagement in the synthesis topic, and at least one member who has current or past involvement pertaining to the management of Bay protection and restoration efforts. Multi-disciplinary, multi-institution Steering Committees are encouraged. Larger Steering Committees may also be appropriate if the project team wishes to encourage participation by stakeholders who are less actively involved in directly managing the science synthesis project, but who are able to provide insightful perspectives and guidance. As an alternative in such cases, it may be appropriate to designate a separate Advisory Committee. Each science synthesis proposal should describe the membership and member roles of its committees.

Each science synthesis project will produce a final report to be delivered to STAC during the project's funding cycle. At least one peer-reviewed publication is also expected. The science synthesis team will also be expected to deliver progress updates to STAC and/or other groups within the CBP Partnership (e.g., Climate Resiliency Workgroup) that may have interest in project outcomes.

III. Proposal Content and Length:

Proposals submitted under this RFP may request funding up to \$125,000 in total costs, including any indirect or overhead. Allowable expenses may include salary (post-doc and/or PI), domestic travel (post-doc and Steering Committee/Advisory Committee), supplies, and page charges. The project must be completed by May 31, 2027 and duration must be aligned with availability of funds. Funding will be available in three phases: Phase 1 funds of \$73,285 become available on 6/1/2024; Phase 2 funds of \$29,800 become available on 6/1/2025; and Phase 3 funds of \$22,642 become available on 6/1/2026.

Proposals should provide a timeline of anticipated tasks and detailed budget and budget justification. In the budget justification, groups should explain how the project will leverage this funding against other resources and funds to maximize the overall impact of the project. Proposals should be no longer than five (5) 8 ½" x 11" pages, single-spaced, 11 pt Arial font. Two-page (maximum) CVs that document the qualifications of each proposed Steering Committee member should be included with the proposal submission. The CVs are in addition to the five-page proposal limit.

¹ Current STAC Membership listed here: <https://www.chesapeake.org/stac/current-membership/>

IV. Proposal Review and Selection

Proposals will be reviewed by a subcommittee of STAC members based on the following evaluation criteria.

1. *Project description (60%):*

Proposals will be assessed based on the overall quality and how the authors demonstrate/illustrate the process/tasks that will be undertaken to successfully achieve the project's objectives by the proposed deadline. Specific assessment characteristics include:

- a) The authors compellingly describe a significant research question that if addressed would advance/inform future Bay restoration and protection efforts (See Addendum B for some potential examples).
- b) The authors compellingly describe how the project will incorporate components to advance diversity, equity, inclusion, and justice (DEIJ) in the Chesapeake scientific community.
- c) Sufficient existing data and information are available about the proposed topic to permit a collation and synthesis that can address existing knowledge gaps and inform additional research.
- d) The authors present a reasonable approach as to how key, relevant climate change-related uncertainties are to be characterized and communicated to stakeholders, including CBP Partnership managers/decision makers.

2. *Capacity (15%):*

- a) Proposals should, to the extent possible, present how the applicant's past performance will ensure the successful completion of proposed activity (i.e., experience with compiling and critically reviewing relevant data/research to produce a "state of the science" report that clearly contributes to informed policy/management decision-making).
- b) The team assembled to address the proposed topic represents a range of expertise that will ensure a collaborative analysis and produce findings that will be capable of informing Bay-related management and policy decisions.

3. *Probability of success (25%):*

- a) Reasonableness of timeline.
- b) Qualifications of the proposed Advisory Committee and their willingness to participate (may be demonstrated with a letter of collaboration appended to the proposal).
- c) Appropriateness of requested budget and budget justification.
- d) Adequacy of available support personnel and facilities (if specified in proposal).

V. Proposal Submission

Proposals are due by the close of business on December 2, 2024.

Proposals may be submitted via email or mail to:

Meg Cole, STAC Coordinator, colem@chesapeake.org

Chesapeake Research Consortium, Inc

645 Contees Wharf Road

Edgewater, MD 21037

Direct questions regarding this RFP to Meg Cole (718.683.2023; colem@chesapeake.org) or Larry Sanford, Chair, Scientific and Technical Advisory Committee (410.221.8429; lsanford@umces.edu).

Addendum A

Statement on Diversity, Equity, Inclusion and Accessibility

In 2020, The Chesapeake Executive Council released a statement in support of diversity, equity, inclusion and justice (DEIJ) reaffirming their “commitment to embrace diversity, equity, inclusion and justice in all areas of the Chesapeake Bay Program to achieve our mission” and formally declaring the Chesapeake Bay Program partners’ position that “the full diversity of people who live, work and recreate in the Chesapeake Bay watershed have a right to benefit from, and help guide, the future of an environmentally and economically sustainable Chesapeake Bay watershed with clean water and air, abundant fish and wildlife, conserved lands, access to the water and a vibrant cultural heritage.” The full DEIJ statement can be read at the following link: [deij statement final all signature \(d18lev1ok5leia.cloudfront.net\)](https://deijstatementfinalallsignature(d18lev1ok5leia.cloudfront.net)). The Chesapeake Bay Program provides additional information on their DEIJ Action Team webpage: [Diversity, Equity, Inclusion and Justice Action Team \(chesapeakebay.net\)](https://diversityequityinclusionandjusticeactionteam.chesapeakebay.net).

The STAC proposal ranking rubric includes DEIJ criteria in ranking proposals for funding. Proposals that describe clear plans for hiring young scientists, collaborating with local groups, producing science with relevance to traditionally under-served communities, and removing barriers for participation are ranked highest. Proposals that state that they will rely on voluntary in-kind participation to address this component will be ranked lower.

Proposals may address DEIJ principles in a number of ways. For example, proposed work may directly serve to benefit underserved populations, such as by including consideration of outcomes for under-served communities in decision-making frameworks. Another example of how proposed work can include DEIJ principles might be partnering with faculty and/or including one or more students from Minority Serving Institutions (MSIs) local to the Chesapeake Bay Watershed in the project. NASA has compiled a national list of MSIs from which local institutions can be identified. This may not be an exhaustive list, but may serve as a useful starting point: [2023-2024 MSI List.pdf \(nasa.gov\)](https://2023-2024 MSI List.pdf (nasa.gov)). Or, proposed work may include mentoring early career scientists in transdisciplinary approaches to science synthesis that include socio-economics as well as hydrology and ecology. These are only a few examples, and we encourage PIs to explore new ways to further DEIJ in their research programs.

Addendum B
(Updated August 1, 2024)

Climate Science Needs for Synthesis Identified by the Chesapeake Bay Program

This list compiles climate-related science needs identified by all Chesapeake Bay Program Outcomes, focusing on those appropriate for synthesis. The first item represents the top climate science priority for the Climate Adaptation Outcome, as determined by the CBP's [Climate Resiliency Workgroup](#). While not all recommendations may be suitable for a science synthesis project as outlined in this RFP, they are provided for informational purposes and to offer context.

1. Synthesize existing research on nearshore nature-based strategies (e.g., tidal marshes, forest buffers, oyster restoration, SAV restoration) to identify thresholds that support ecological and community benefits under current and future climate conditions, including temperature, precipitation changes, and sea level rise. Include adaptation strategies to maintain or enhance benefits such as habitat, shoreline protection, flood reduction, cultural preservation, and economic improvements in response to climate change.
2. Develop and apply tools or methods that integrate various inputs to characterize healthy nontidal and healthy tidal waters vulnerability to future high-level risks including development and climate related stressors.
3. 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.
4. Advance understanding of carbon stewardship science by quantifying carbon storage and sequestration in the Chesapeake Bay watershed, including the impacts of water quality BMPs and agricultural practices. Develop projections for landscape changes due to climate and land use, and create educational materials to help partners achieve regional and state goals.
5. Develop a Trees & Climate Resilience best practices technical guide with analysis on which tree species are thriving or struggling in the face of climate change.
6. Better articulation of green career/workforce pathways.
7. Explore whether shallow-water oyster reefs can absorb a meaningful amount of wave energy as an element of shoreline protection.
8. Synthesize recent CBP efforts and identify opportunities to expand CBP's role in social science, determining which disciplines should be incorporated into CBP work. Evaluate social science strategies needed to influence behavior change in existing practices.
9. Synthesize research to understand the connections between water quality improvements across various habitats, with a focus on shallow water stressors, dissolved phosphorus trends, and climate change impacts; analyze how climate change is influencing dissolved phosphorus levels and address non-point sources and nutrient mass imbalances.
10. Integrate DEIJ considerations into the management approaches to enhance understanding and effectiveness in addressing these issues.