



## **Chesapeake StREAM Internship Blue Carbon Data Detective and Crediting Protocol Review**

### **Project Description**

The Chesapeake Bay Program (CBP) ([www.chesapeakebay.net](http://www.chesapeakebay.net)) and the Chesapeake Research Consortium ([www.chesapeake.org](http://www.chesapeake.org)) in collaboration with the Center for Coastal Resources Management (CCRM; <https://www.vims.edu/ccrm>) seek an intern for late May through mid-August (12 weeks) to provide assistance on projects connected with assessing the science and strategies to support climate resilience activities for the Chesapeake Bay. The CCRM is based at the Virginia Institute of Marine Science (VIMS) and their mission is to conduct scientific research on resource management questions and support informed decision-making on issues at all levels of government, and private and corporate citizens. The CCRM is a member of the CBP Climate Resiliency Workgroup ([https://www.chesapeakebay.net/who/group/climate\\_change\\_workgroup](https://www.chesapeakebay.net/who/group/climate_change_workgroup)), which coordinates the climate resilience and adaptation efforts for the CBP partnership.

The CBP Climate Resiliency Workgroup and CCRM are supporting efforts to understand the current state of the science related to blue carbon stocks—the temporary or long-term storage of carbon in coastal or ocean systems, such as salt marshes, mangroves, and sea grasses (also referred to as submerged aquatic vegetation or SAV) and their use in blue carbon crediting protocols as a potential option to finance wetland and SAV restoration projects. These systems are being recognized for their importance in carbon sequestration and their connection to mitigating climate change impacts. This position involves a literature review and data exploration (data detective!) that would look at: the types of information and data that are needed to apply existing blue carbon crediting protocols for wetlands and SAV restoration projects; the spatial extent and characteristics of blue carbon data in the Chesapeake Bay; the strengths and limitations of each crediting approach related to available data and information; the impact of blue carbon stock variability in applying existing protocols to the Chesapeake Bay; and potential approaches to verify blue carbon value with existing monitoring programs.

Results from this project will assist VIMS researchers in providing advice to the Natural Resources Conservation Service on coastal soil carbon stocks and the CBP Climate Resiliency Workgroup in preparing background materials for a workshop proposal involving the assessment of science needs to allow the use of the existing blue carbon crediting protocols to support the financing of wetland and SAV restoration projects in the Chesapeake Bay area.

## **Opportunities**

This internship will provide a unique opportunity to contribute to large-scale, long-term natural resource management and policy development critical to understanding blue carbon resources and crediting restoration activities (e.g., wetland and SAV restoration) that enhance those resources. The C-StREAM intern will gain experience in natural resource management and environmental policy. Exploring the importance of blue carbon stock variability will require delving into several different databases to compare location characteristics and data variability across spatial scales, allowing for the intern to build their geospatial analysis skills. There will be opportunities to present project findings to workgroups within the CBP Partnership and develop informational posters to be shared with educators and stakeholder groups.

In addition, this internship experience will provide an opportunity to intern at an internationally recognized marine institute and interact with the CBP Climate Resiliency Workgroup. It will highlight insights into careers in natural resource management, climate change research, policy development and science beyond those applied for and allows interns to make connections with established environmental management and science professionals.

## **Deliverables**

- Literature review of existing blue carbon crediting protocols, impacts of carbon variability on protocol application, and verification possibilities.
- Map of areas showing relative robustness of blue carbon stock data.
- Presentation to CCRM and CBP staff at the conclusion of the internship summarizing the work conducted and experiences gained.
- Presentation at the C-StREAM end of summer student symposium.

## **Requirements**

- Basic knowledge of ArcGIS or other GIS software is preferred.
- Excellent writing skills.
- Motivated self-starter with ability to work and reason independently.
- Must be a college-level student entering sophomore, junior, or senior year of undergraduate study. Students are also eligible to participate during the immediate summer following their graduation if they are pursuing graduate studies in the fall.
- Must be a U.S. Citizen and willing to undergo a security background check.

## **Work Location and Duration**

Due to health concerns, as well as CRC and VIMS policies guiding us during COVID-19 we have not yet determined if this position will be virtual or in person. Currently, we are planning for both possibilities. If we are able to offer this position as an in-person opportunity it will be stationed at the Virginia Institute of Marine Science, Gloucester Point, VA.

The internship is scheduled to begin Monday, May 24, 2021 and end Friday, August 13, 2021. These are our preferred dates, but the dates can be adjusted to accommodate a student's school schedule if required. We plan on providing interns with access to a VIMS computer, email and phone services if this internship is offered in person. If the internship is virtual, interns will need to have access to a suitable internet, computer and communication resources. A car is required if stationed at VIMS.

### **Compensation**

The intern will be reimbursed at the end of each month (June, July, and August), for a total of up to \$6,000 (\$500/week) for the equivalent of 12 weeks (480 hours) of full-time activities. Candidates should expect to follow a normal weekday work schedule (roughly 9-5, M-F) with occasional variations for possible field work or other activities. No benefits are provided. We offer assistance in arranging local housing if the position is an in-person opportunity if desired. A one-time housing and transportation allowance of \$1,000 is available to each intern to assist with living and transportation expenses. Funds are also available to compensate interns for occasional work-related travel and professional development activities.

### **Diversity and Inclusion**

The Chesapeake Research Consortium and VIMS are committed to supporting a diverse and inclusive science-oriented workforce. Our internship program endeavors to recruit from a diverse, qualified group of potential applicants to secure a high-performing workforce drawn from all segments of American society. CRC and VIMS are strongly supportive of broadening the participation of historically Black colleges and universities, Hispanic serving institutions, Tribal colleges and universities, and institutions that work in underserved areas. We highly encourage applications from students at any of the above institutions as well as students that identify as Black, Indigenous, person of color or 1st generation college student.

### **Application Instructions**

Application instructions, required materials, and the C-StREAM application portal can be found on the C-StREAM website (<http://chesapeake.org/c-stream/>).

**The deadline for applications is February 20, 2021.**