



RESILIENCE RESEARCH & DESIGN
COLLABORATIVE LABORATORY:
TIDEWATER COLLABORATORY

REQUEST FOR STATEMENT OF QUALIFICATIONS & INTEREST



BACKGROUND:

Southeastern Virginia (Hampton Roads) is a flat, tidal region with the highest measured rate of relative sea level rise on the Atlantic Coast at 4.45 mm/year, predicted to increase 4 – 6 feet over the next 100 years. Already, the Hampton Roads region has seen a substantial increase in the severity of nuisance flooding events. The region has been ranked by the Organization for Economic Cooperation and Development as 10th in the world for assets at risk from sea level rise in port cities and 19th globally in the value of assets (\$84.6 billion in current assets, \$581.7 billion in future assets) at risk from increased storm surges and tidal flooding. Most of Hampton Road's economy is water-dependent (military bases, ship building, ship repair, shipping, ocean tourism) and at high risk. This “nuisance” or “recurrent” flooding has become a way of life in low-lying coastal communities and frustrated communities are seeking action that increase their resilience and help them live with water.

In the face of challenges, humans invent, experiment, and innovate. We see an opportunity in Virginia's sea level rise vulnerability to develop innovative adaptation approaches to increase our resilience and that can then be adopted by other coastal communities. Some solutions may be commercialized, marketed globally, and advance Virginia's position as a workforce and business development leader in cutting edge, integrated ecological, socio-economic, and physical water management.

To enable such innovation in a community's resilience and adaptation options and to grow the accompanying workforce and businesses in Virginia, Wetlands Watch and Virginia Sea Grant have partnered to form a *Collaboratory*, a Hampton Roads-based test bed for innovation and workforce development. The *Collaboratory* aims to:

- Develop needed adaptation tools, strategies, and designs that advance ecological, social and economic resilience.
- Speed implementation of feasible resilient solutions, particularly in the face of resource limitations.
- Develop the workforce needed to implement innovative adaptation tools, strategies and designs.
- Focus, leverage, and enable coordination of academic capacity working in the tidewater region.

Partners: The *Collaboratory* is composed of:

Wetlands Watch is a nonprofit organization, incorporated in 2001, working statewide in Virginia to conserve and protect wetlands and adjacent open spaces. Since 2008, Wetlands Watch has been concentrating on the impacts of climate change on the state's wetlands, with a special emphasis on sea level rise impacts on tidal wetlands. The central

focus has been to mitigate those losses through wise local land use planning and decisions that keep shorelines open, green and resilient.

Virginia Sea Grant (VASG) is a seven-university partnership, headquartered at the Virginia Institute of Marine Science (VIMS) with William & Mary, and composed of the University of Virginia, Virginia Tech, and Old Dominion, George Mason, Virginia Commonwealth, and James Madison Universities. VASG is a federal-state partnership, with federal funding from the National Oceanic and Atmospheric Administration (NOAA). VASG's charter calls for it to advance collaboration, coordination and integration across the partner institutions and our functional areas (i.e., research, education, outreach, and communication), and promote interdisciplinary, integrated activities that address pressing coastal and marine resource problems in the Commonwealth.

United States Green Building Council, Hampton Roads (USGBCHR) [formerly Hampton Roads Green Building Council] is a private 501(c) 3, membership-based non-profit organization that promotes sustainability in buildings design, construction, and operation. The USGBCHR serves the Greater Hampton Roads Virginia area and its membership includes the southeastern portion of Virginia. The chapter's vision is one of a transformed Hampton Roads region in which the principles of sustainable planning, design, construction and operations are accepted, normal and achieved for the benefit of the public and the environment. USGBCHR seeks to promote sustainable building practices in the Tidewater region of Virginia through educational programming and endorsement of the Leadership in Energy & Environmental Design (LEED) green building rating system.

OPPORTUNITY: Supporting University-Community Partnerships

With funding from the Aduvans foundation, Wetlands Watch and Virginia Sea Grant (VASG) have partnered to support faculty-student teams in place-based, resilience research projects, working directly with Tidewater community clients. We are seeking faculty-student teams in any form, e.g., within practicum, studio, clinical, capstone, or other team experiential learning courses; faculty-supervised internships; community service programs; or other stand-alone faculty-student team independent research and study projects. The faculty-student teams will seek to improve resilience for a specific Tidewater community project. We have a strong preference for multi-disciplinary teams with a clear strategy for producing a highly integrated, cross-disciplinary outcome. We encourage year-long projects that provide greater continuity and depth of work to the host community, although a sequence of semester-long projects may achieve similar outcomes. Teams will produce specific, targeted deliverables (e.g., report, designs and plans, formal presentations, or other summary of findings, designs, activities or deliverables) that help advance the resilience of coastal communities in the Tidewater region.

Award Information: A grant through VASG will be awarded to support the team activities in the field. Awards of up to \$3,000 will be available to support travel into the field, publishing materials for the community client, presenting findings to communities and other stakeholders, teaching assistants, or other critical expenses needed to support community-based resilience

work in the tidal reaches of Virginia. While not required, a university match would strengthen partnerships and the project.

Funding is currently available for semesters through 2020. We will accept Statements of Qualifications and Interests on an on-going basis. We are also soliciting needs and projects from community partners on an on-going basis and are maintaining a matching database of university resilience capacities and community resilience and adaptation needs. We anticipate funding two projects per semester to support through the Collaboratory with financial resources and technical assistance.

Similar projects in the past have included:

- A project in the [Ingleside neighborhood](#) in Norfolk which involved students in a capstone resiliency course at the University of Virginia identifying community problems and developing green infrastructure approaches to mitigating stormwater pollution and flooding.
- The award-winning [Chesterfield Heights resiliency design project](#), which was a collaboration among Old Dominion University's Department of Civil and Environmental Engineering, Hampton University's Department of Architecture, Virginia Institute of Marine Science, Wetlands Watch, VASG, and Hampton Roads Green Building Council.
- An innovative waterfront property reuse plan for the [Captain Sinclair's](#) property, conducted by the Virginia Commonwealth University's Center for Urban and Regional Analysis, in partnership with VASG and the Middle Peninsula Planning District Commission.
- A project conducted outside of this initiative but illustrating the type of collaboration we are sponsoring, was a partnership between VA Tech's [Sustainability Planning Lab](#) and the City of Alexandria which resulted in the [City's Eco-city Green Practices inventory](#).

Current projects include:

- A University of Virginia doctoral student review of the apparent decline of tidal shoreline private property appraisals in Hampton Roads over the past two years.

Eligibility: Requests for Statement of Qualifications and Interests are welcomed from any Virginia academic institution and from any discipline, as long as the capacity can clearly advancing resilience in Virginia's Tidewater region by working directly with community partners. Clear faculty supervision is required and the students should be enrolled in a relevant undergraduate or graduate program.

STATEMENT OF QUALIFICATIONS & INTERESTS SUBMISSION:

Qualifications and Interests can be submitted directly to Wetlands Watch – skip.stiles@wetlandswatch.org . While there is a rolling submission process without a deadline, the Collaboratory team will be discussing project opportunities in December/January for the following summer and fall terms, and again in June/July/Aug for the following year's spring term classes. Our hope is to identify potential matches and projects far enough in advance to align with faculty's course planning and semester scheduling.

There may be opportunities to launch Collaboratory projects mid-term as well, depending upon the flexibility of the university.

SUBMISSION GUIDELINES:

Our intention is to obtain a detailed overview of the capacity and interests in your educational and research programming, and NOT to solicit a specific project proposal. We are not asking for a budget. We are not asking for pre-identified community partners or specific project ideas. After the match-making exercise the Collaboratory will approach faculty to pursue the development of a work plan and budget, and thus from the Collaboratory's perspective, we do not need submissions signed by an authorizing official at your home institutions (i.e., we do not need a submission that has been reviewed by your sponsored programs office). However, individual university policies vary and you should confirm with your institution as to whether they need to review your Statement prior to submission.

Each submission must include the following sections and headers. The document can be submitted as one contiguous PDF. There are no page limits, although general guidelines are suggested:

1. Faculty-Student Team Approach (~3-5 pages). Describe the practicum, studio, clinical, capstone, or other team experiential learning courses; faculty-supervised internships; community service programs; or other stand-alone faculty-student team independent research and study projects. More than one option can be listed, but for each option please discuss:
 - a. Title of the practicum, studio, clinical, capstone, or other team experiential learning courses; faculty-supervised internships; community service programs; or other stand-alone faculty-student team independent research and study projects.
 - b. Objectives, including learning objectives for the students and the aims of the faculty-student team-developed deliverable to community partners.
 - c. Specific course design and approach to instruction, community partnerships, and products and deliverables; general work plan with tasks, activities, duration of the course, time in the field and classroom, etc.; and other important features of the faculty-student team approach,
 - d. Approach to team coordination and communication, including details of strategies for engagement with community partners and Collaboratory funders.
 - e. Critical deadlines and features in the course design, e.g., when do community partnerships and projects need to be finalized, what are minimum enrollment sizes for the course to occur.
 - f. Full contact information of the faculty point of contact and any other key staff members, including a short bio (a full CV will be attached).
 - g. Description of students on the faculty-student team, e.g., majors, undergraduate/graduate, disciplines, size of teams.
2. Faculty's Statement of Interest in Resilience and Virginia's Tidewater region (~2-3 pages):
 - a. Background, with a clear problem statement, rationale for the project, and project objectives.

- b. Work Plan, including detailed methods, activities and tasks, timeline matrix, etc.
 - c. Qualifications and Responsibilities of the Team, including discussion of the students' background and skills, and the roles of the team members.
 - d. Deliverables and Products
 - e. Expected Impact, including impact on resilience and growth of water management workforce and economy in Hampton Roads.
3. Resumes/CVs of faculty and any key staff (short 2-pages CV versions).
4. Sample Syllabi.
5. List of names and contact information for community references who have worked with the faculty-student team course before. If you have past testimonies or letters of reference from Community partners, up to three could be included. You do not need to solicit original letters for this submission; supplying letters in your current files that supported past proposals, reviews or other purposes is fine.
6. List of URLs pointing to sample deliverables, products or services, media coverage, or other online stories from past projects. We do not want actual samples of past deliverables; rather, links to those online.
7. General cost estimates for course conducted in the Tidewater region. Identify funds covered by home institution's course budget, and additional funds that would be needed in order to work in the Tidewater. This is not an official budget, but rather a general, ballpark estimate to inform the Collaboratory of the financial needs to support faculty-team resilience work in partnership with communities in the Tidewater; the budget estimate will not impact matching with community partners. We anticipate that universities further away from the Tidewater may need additional travel support than those located closer to the Tidewater region.

MATCHING PROCESS

The Collaboratory has issued a similar Call for Resilience Project Ideas targeting coastal community partners in the Tidewater region. In consultation with the Collaboratory Advisory Committee, we will match high priority resilience projects with university capacity to meet those needs. The Collaboratory will then reach out to the university and community partners to launch the development of a Memorandum of Understanding (see Attachment); Collaboratory staff will facilitate these discussions. While we are considering matches and projects on an on-going basis, we aim to make decisions in the late fall/early winter and again in the late spring/early summer for projects to begin in the fall and spring terms, respectively.

FOR MORE INFORMATION

The Collaboratory maintains a web-site with background information on the resilience issues faced in the Tidewater region, examples of past projects, and tips on working with community partners. <http://wetlandswatch.org/design-collaboratory>

To discuss the Collaboratory and potential match of your university capacity and interests with Tidewater community resilience needs, please contact:

- Skip Stiles, Executive Director, Wetlands Watch, skip.stiles@wetlandswatch.org, or
- Michelle Covi, Virginia Sea Grant, ODU, mcovi@odu.edu.

ATTACHMENT 1

Sample Memorandum of Understanding

Resilience Education, Research & Design Collaborative Laboratory

Project Title:

Scope of Work:

University Partner:

Community Partner:

Project Statement:

This should contain a description of existing conditions, statement of problem, and overall goals of the project.

Project Deliverables:

What will be the final product to be delivered to the client at the end of the project? What is the delivery date?

Project Steps/Timeline:

What steps and processes will take place and by what date? Include a workplan and dates for all meetings with the community partner in this step. For each step, identify who is responsible for completing the step. If you are designing items for the client, indicate what you are designing and the corresponding dates of creation and completion.

Faculty Supervisor, Date

Community Client, Date