

Connecting Sea Grant Professionals to Department of Defense Climate Resilience Initiatives at a National Conference



A report of the project supported by FY2023 Workshops
and Professional Meetings Special Competitions

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COASTAL RESILIENCE DOD LIAISON

The Coastal Resilience Department of Defense (DOD) Liaison program is designed to assist defense communities in becoming more resilient to coastal hazards by sharing expertise and making connections across Sea Grant, Department of Defense and community leadership.

The Liaison works with Sea Grant coastal resilience specialists and others across the network to leverage expertise in resilience planning, water resources management, community engagement, communication, nature-based infrastructure, conservation, floodplain management and education, to advance the sustainability of coastal defense communities and ecosystems.

The program is a partnership between Sea Grant and the Office of the Assistant Secretary of Defense (Sustainment) at DOD, working with the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) and the DOD Readiness and Environmental Protection Integration (REPI) Program. Both national and southeast regional (NC, SC, GA, FL, AL, MS) priorities guide the program that seeks synergies with relevant coastal resilience efforts. The liaison also supports the work of SERPPAS and REPI in their coastal resilience programs, particularly serving as the lead for the SERPPAS Coastal Resilience and Regional Adaptation Work Group.

DOD CLIMATE RESILIENCE

The Department of Defense has identified climate change as a critical national security issue and threat multiplier since 2014. As a top management challenge, climate change will continue to impact operational demands, degrade installations, threaten the health of service members, and require adaptation. In 2021, DOD responded to the need for coordinated action by developing an agency-wide adaptation framework and by developing policies for adaptation plan implementation. The desired end state is ensuring that DOD can operate under changing climatic conditions, preserving capability and enhancing and protecting essential natural and man-made systems. [DOD Climate Adaptation Plan](#)

***Military installation resilience** is defined as “the capability of a military installation to avoid, prepare for, minimize the effect of, adapt to, and recover from extreme weather events, or from anticipated or unanticipated changes in environmental conditions, that do, or have the potential to, adversely affect the military installation or essential transportation, logistical, or other necessary resources outside of the military installation that are necessary in order to maintain, improve, or rapidly reestablish installation mission assurance and mission-essential functions” (U. S. Code [10 USC § 101\(e\)\(8\)](#)).*

ACKNOWLEDGEMENTS

The project was made possible with support from UGA Marine Extension and Georgia Sea Grant, and the DOD REPI program. The planning team included Michelle Covi, Tom Herington, Renee Collini, Sarah Spiegler, Nina Woodard, Holly Abeels and Shellie Habel. The report was written by Michelle Covi and reviewed by the planning team.

Comments and questions, contact Michelle Covi at mcovi@uga.edu.

DOD CLIMATE RESILIENCE WORKSHOP 2023

The Offices of the Assistant Secretary of Defense for Energy, Installations, and Environment hosted the first-ever DOD Climate Resilience Workshop from July 10 - 13 in St. Louis, Missouri. This workshop provided a forum for DOD stakeholders and partners to explore the many facets of climate change, a national security threat that has tangible impacts to military readiness. Installations, environmental organizations, and climate change professionals were broadly represented to help inform the Military Departments on data, tools, and resources for addressing and combatting climate change threats. During the workshop, attendees learned about several lines of effort supporting DOD's Climate Adaptation Plan.

The workshop was organized by the DOD Readiness and Environmental Protection Integration (REPI) Program, the Office of Local Defense Community Cooperation (OLDCC), the Office of the Deputy Assistant Secretary of Defense for Construction and the Office of the Deputy Assistant Secretary of Defense for Environment & Energy Resilience.

The [agenda](#) included plenary and issue sessions, which provided the opportunity for attendees to learn about broader policy initiatives and cooperation across federal agencies and states. Deep dive and workshop sessions at the meeting provided information about on-the-ground implementation of climate adaptation initiatives, tools and case studies. Planning resources, opportunities for partnerships, pathways to adaptation implementation, best practices, natural infrastructure solutions, and funding mechanisms were highlighted in these sessions. The sponsoring DOD Offices hosted informational tables that were available throughout the multi-day event. The workshop also provided breaks and a reception that encouraged networking and relationship building among attendees.



The DOD Climate Resilience Workshop events took place over 4 days and was attended by over 900 people, largely DOD from the Office of the Assistant Secretary of Defense, the Services and local installation personnel. Many federal agency and state natural resources agency leaders and NGO partners

were also in attendance. Local government, academics, and consultants were present primarily as presenters in sessions related to case studies and best practices. While this workshop was the first of its kind, many of the leaders, partners and installation staff have been working together at the local and regional level. The workshop provided the first opportunity to share success stories widely as well as the challenges of climate adaptation in many different ecological and social contexts.

The sponsoring DOD offices considered the workshop to have achieved its goals and are reviewing options for future engagements.

SEA GRANT ENGAGEMENT AT DOD CLIMATE RESILIENCE WORKSHOP

This project funded travel for four Sea-Grant affiliated coastal resilience professionals to attend the DOD Climate Resilience Workshop in addition to two of the Co-PIs. Additionally, the Coastal Resilience DOD Liaison funded travel to the workshop through her program and an additional five Sea Grant professionals funded their travel independently through their programs. The funding also supported a small group engagement event.

THE PROJECT OBJECTIVES:

- Foster greater understanding in Sea Grant professionals of climate resilience requirements for DoD and how resilience improvements in defense communities provide benefits to military goals. By understanding DoD requirements and how funding is available for defense communities, Sea Grant professionals can assist defense communities in accessing resources for climate resilience planning and project funding, increasing the capacity for resilience to the benefit of the defense community.
- Promote collaborations for climate resilience and natural infrastructure projects in defense communities with funding from DoD. Collaborations between Sea Grant climate resilience professionals and community liaisons at military installations resilience can expand the capacity of DoD community planning officers for equitable community engagement and accelerate climate resilience planning and implementation.
- Explore examples of successful natural infrastructure projects that use innovative funding, planning, and engineering methods to achieve multiple community, defense and ecosystem resilience goals. Sea Grant professionals can use these models to develop proposals with defense communities that can be funded by DoD programs. The DoD REPI program funds natural resources and natural infrastructure projects.
- Identify and grow new partnerships between Sea Grant professionals, DoD programs staff, installation community liaisons and their partners to advance equitable and ecologically sound coastal resilience and regional climate adaptation in communities. These partnerships will advance understanding of the shared natural resources missions of NOAA/Sea Grant and DoD and the implementation of green infrastructure and nature-based solutions.

PROCESS SUMMARY

PIs Covi, Herrington, and Collini developed an online [form](#) to allow Sea Grant professionals to apply for the travel funding. The form included questions about the person's current or desired work with DOD, installations and/or defense communities. Other questions included current or future work with under-served communities and workforce diversification. A forecasted reimbursement request allowed the PIs to determine the number of requests that could be granted within the budget. An email to solicit applications was distributed primarily through the Sea Grant Climate network and Water Resources networks, but also the PIs' personal networks.

Ten applications were received for a maximum of four travel awards that could be supported with this funding. The PIs selected five of the applicants that seemed most likely to develop relationships with installations and advance climate resilience partnerships. Further consultation with the REPI director narrowed the selection to four who represented Hawaii Sea Grant, Mississippi-Alabama Sea Grant, North Carolina Sea Grant, and Florida Sea Grant. In addition, PIs from Georgia Sea Grant and New Jersey Sea Grant as well as specialists from South Carolina Sea Grant and MIT Sea Grant also attended the workshop.

NETWORKING LUNCH

The Coastal Resilience DOD Liaison coordinated with the DOD partners to plan logistics for a small group networking opportunity between Sea Grant specialists and DOD representatives or partners from their nearby installations. Since the workshop did not include meals as part of their program, a lunch was coordinated at the meeting venue (space donated by DOD). Thirty attendees included 12 Sea Grant professionals, 11 DOD national, regional and local staff, and 7 key local/regional DOD partner NGO and government staff.

The lunch provided an opportunity to introduce many of the DOD participants to Sea Grant and included the distribution of a brochure developed by the Coastal Resilience DOD Liaison in collaboration with the UGA Marine Extension and Georgia Sea Grant communications team (see Appendix). The lunch started with a welcome and introduction by Co-PI Michelle Covi and short self-introductions of Co-PIs Tom Herrington and Renee Collini, Shellie Habel of University of Hawaii Sea Grant also spoke briefly about her research and program.



Participants were informally surveyed after the networking event. DOD and partners NGO/government staff expressed their appreciation for the invitation to network. Some of the installation staff reflected that there were few opportunities for small group networking at the event and the lunch was one of the most beneficial.

The Sea Grant participants found the experience very valuable. One said that “the *biggest benefit was attending a DOD meeting, to be exposed to their culture and see how they interact and talk.*” Participants said they would not have been aware of the meeting at all without our reaching out to solicit their applications for the travel funding. Two of the applicants who were not funded through this project were able to attend with their own program funding.

Although some participants had heard about DOD funding opportunities, they became more aware of the how the funding works, the DOD tools, and what was happening in their state. Participants were pleased that there was no questioning about whether climate change was happening and that the focus within DOD was on climate resilience action.

One participant said “*The conference provided a valuable range of information regarding types of funding available, how to obtain funding for resilience related projects, and DOD requirements towards project implementation. Examples of past projects were particularly insightful, including projects undertaken inside and outside of installation fence lines.*”

When asked about whether staff made connections that might be valuable in the future, one person responded, “*multiple connections were made regarding projects being undertaken on DOD managed land. These included connections made with the Environmental Protection Specialist working alongside the Pacific Missile Range Facility. Their interest was regarding hydrology on Mana, the coastal plain on the west side of Kauai where PMRF is located. The*

area was once an estuary that was drained for sugar production and now operates on a series of drainage canals and pump systems and is mostly used for agriculture, though there are other plans in the works, including an innovative hydro/solar power project. We were able to connect following the conference and have plans to discuss sea level rise related changes in the local coastal aquifer.”

CONCLUSION

The funding received through the FY2023 Workshops and Professional Meetings Special Competitions advanced the knowledge and understanding in Sea Grant Coastal/Climate Resilience professionals of DOD climate resilience efforts and funding opportunities. It also helped to advance relationships that will benefit the coastal and climate resilience of communities that host DOD installations and beyond. Workshop attendees were able to explore examples of successful resilience projects that use innovative funding, planning, and engineering methods to achieve multiple community, defense and ecosystem resilience goals. New partnerships were fostered and a greater understanding of DOD-specific methods, resources and tools was gained. Shellie Habel, University of Hawaii Sea Grant, provided the following list of models, tools, and resources that she found particularly helpful.

Tools:

Department of Defense Regional Sea Level Database

DOD Climate Assessment Tool

Climate Mapping for Resilience and Adaptation

Recent US Climate Change and Hydrology Literature Applicable to USACE Missions

Other Model Projects/Resources:

Climate Resilience Ecosystem Modeling Resource

Climate Insights and Heat Zone Mapping

Podcast: The Wild West of Climate Modeling

National Climate Strategic Planning by NOAA: Building a Climate Ready Nation

Coastal Resilience Master Planning Completed by locations including the State of Virginia and Jacksonville Florida, and even Hawaii (Hawaii Coastal Resilience Assessment)

Hampton Roads Urban Sentinel Landscape

This project was a successful first step in developing relationships for many of the Sea Grant professionals that attended and helped expand engagement for several others who are already working with their local installations. The Coastal Resilience DOD Liaison program will continue to build on the success of this engagement and support Sea Grant professionals seeking to work with DOD on climate resilience for the communities and ecosystems on which DOD installations and missions depend.

PARTICIPANTS

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APPENDIX

Partnering with the DOD to Build Military Community Resilience

To better coordinate resilience efforts between military installations and their surrounding communities, Sea Grant teamed up with the Department of Defense to launch the coastal resilience Department of Defense (DOD) liaison program in 2021. The program assists military communities in becoming more resilient to coastal hazards by sharing expertise and making connections across Sea Grant, the DOD and community leadership.

The liaison works with coastal resilience specialists and others in the Sea Grant network to leverage expertise in resilience planning, water resources management, community engagement, communication, nature-based infrastructure, conservation, floodplain management and education to advance the sustainability of coastal defense communities and ecosystems.



Find a Sea Grant resilience professional near you:

Contact

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Additional Resources:

Coastal Resilience DOD Liaison Program
t.uga.edu/9bb

Learn more about the Sea Grant network at
[Seagrant.noaa.gov/About](https://seagrant.noaa.gov/About)

Community Resilience from Start to Finish
bit.ly/Comm-Resilience-StartToFinish



Connect with Sea Grant

for Resilient Communities
and Natural Resources

What is a Resilient Community?

A resilient community can prepare for anticipated hazards and recover rapidly from disruptions. Coastal communities and the natural resources they depend on are being affected by sea level rise, greater intensity and frequency of storms, compound flooding and coastal erosion. Climate resilience aims to reduce the vulnerability of communities and ecosystems to these impacts through planning and the development of resilient infrastructure.



How Does Sea Grant Support Resilience?

Sea Grant is a national network of 34 university-based programs, supported by NOAA, that enhance the practical use and conservation of coastal, marine and Great Lakes resources through research, extension, and education. Sea Grant has over 800 extension professionals who live in many of the communities that they serve. They provide technical and science-based information and training to address local needs while sharing research priorities with partner universities.



Sea Grant extension professionals working in resilience:



Help communities develop resilience plans



Convene, support and train networks of resilience professionals in their regions



Implement and support nature-based solutions to address coastal erosion and green infrastructure projects that build resilience and protect water quality



Work with partners to communicate risk of extreme weather and other hazards



Involve community members in data collection that informs resilience strategies



Assist vulnerable, frontline communities in addressing priority concerns