



# REQUEST FOR PROPOSALS

## UNIVERSITY OF HAWAI'I SEA GRANT COLLEGE PROGRAM

### 2020-2022 Biennial Grant Award Cycle

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#### OVERVIEW

Preliminary proposals are requested for the 2020-2022 University of Hawai'i Sea Grant College Program (Hawai'i Sea Grant) funding cycle. Hawai'i Sea Grant is one of 33 Sea Grant College Programs dedicated to improved understanding and stewardship of the Nation's marine and coastal resources. Created by Congress in 1966, the National Sea Grant College Program comprises a network of more than 300 participating institutions, drawing on the talents of over 3,000 scientists, engineers, educators, students, and outreach specialists nationwide.

Hawai'i Sea Grant supports a multidisciplinary, integrated program of applied research, outreach, and education addressing marine and coastal issues of public concern. Information generated by Hawai'i Sea Grant-funded research reaches stakeholders via Hawai'i Sea Grant extension, education, and communications activities in Hawai'i and via the national network.

#### THE 2020-2022 PROGRAM

Faculty from universities and colleges; state, local, and regional governments and organizations; and individuals in Hawai'i and US Affiliated Pacific Islands (USAPI) are encouraged to apply. Funding begins February 1, 2020 and ends January 31, 2022. An average award is \$35,000/year inclusive of indirect costs. Graduate trainees are funded separately; please see additional information below (Graduate Trainee Requests). University of Hawai'i established indirect cost rate for on-campus research (i.e., 41.5%) will be applied to all grants awarded (see <http://www.ors.hawaii.edu/index.php/apply/budget-development/indirect-costs>).

**Proposals that integrate physical and natural sciences with social sciences toward addressing issues that are relevant to living sustainably along coasts and that engage in graduate student training will be especially encouraged.** This is not suggesting that a multidisciplinary approach is sufficient in and of itself. Rather, to solve the challenges we face, we must conduct research that engages many disciplines (multidisciplinary), integrates the physical, natural, and social sciences (trans-disciplinary), and analyzes, synthesizes, and harmonizes links between disciplines into a coordinated and coherent whole (inter-disciplinary).

Proposers seeking to submit “multi-investigator” proposals are encouraged to discuss pre-proposal ideas with the Hawai‘i Sea Grant program leader and director. For additional information and examples of questions and/or appropriate topics, see 'Guide to Proposers' below.

**In addition to supporting research projects that are scientifically excellent and societally relevant, Hawai‘i Sea Grant is committed to projects that inform and engage relevant communities.** The results of this research are developed and shared with stakeholders through various pathways, often via Sea Grant’s integrated outreach program which brings together the collective expertise of on-the-ground extension agents, educators, and communications specialists. The goal is to ensure that vital research results are informed by and shared with those who need it most, and in ways that are timely, relevant, and meaningful.

## **STATEMENT of RESEARCH KULEANA**

As an organization we have a kuleana (responsibility and privilege) to ensure that the programs and projects we support engage in collaborative, mutually-beneficial partnership with communities. It was with this kuleana in mind that Hawai‘i Sea Grant collaborated with Kua‘āina Ulu ‘Auamo and Paepae o He‘eia to develop the [Kūlana Noi‘i](#). The meanings of kūlana include “position, posture, reputation, attitude, stance” and when paired with noi‘i, which means “to seek knowledge or investigate, to research,” the Kūlana Noi‘i provide a set of standards for engaging in long-term relationships between community and researchers.

Hawai‘i Sea Grant is committed as an organization to the standards outlined in the [Kūlana Noi‘i](#). The following standards\* are modified from the [Kūlana Noi‘i](#):

- **Respect:** The history, people, and place must be respected through understanding, acknowledging, and honoring local culture, traditions, knowledge, and wisdom.
- **Reciprocity:** Relationships between researchers and community should be reciprocal rather than extractive.
- **Self-Awareness and Capacity:** Be aware of and address your place, intentions, power, and value to the place both as an individual and a representative of a group or institution.
- **Communication:** Inclusive, transparent, and open communication should be employed throughout the research process.
- **Maintain a Long-Term Focus:** All research projects should contribute positively to the effort to mālama (care for) this wahi (place).
- **Community Engagement and Co-Review:** Promote co-learning and co-development of methods, strategies, goals, and outcomes to be adaptable to local place, people, climate, resources, and needs.
- **\*Knowledge Ownership and Access:** Ownership of information and data about a place ultimately belongs to the community. The community has the right to access and utilize data and have a voice in how information and data are shared.
- **Accountability:** When a project fails to meet these kūlana the community and researchers should work together to identify problems and adjust the project accordingly.

Pending anticipated federal funding, Hawai'i Sea Grant expects to award funding to approximately 12-15 proposals in 2020-2022. Successful projects will: 1) be hypothesis driven; 2) demonstrate strong evidence of scholarly merit that leads to papers in peer-refereed journals; 3) focus on the mentoring of graduate and undergraduate students; and 4) identify and include targeted outreach strategies to engage and inform specific user groups throughout the research process, and address critical needs and issues as defined in the Hawai'i Sea Grant focus areas and cross-cutting themes.

**The four Hawai'i Sea Grant areas of focus are:**

- Healthy Coastal Ecosystems
- Resilient Communities and Economies
- Environmental Literacy and Workforce Development
- Sustainable Fisheries and Aquaculture

**General themes that cut across these focus areas are also of interest:**

- Sustainability and Resilience
- Climate Change Adaptation
- Integrated Knowledge Systems

Hawai'i Sea Grant's focus areas and cross cutting themes are a direct result of several underlying concepts: the understanding that the majority of the issues we face in the ocean and on our coasts are due to the behavior and activities of people on land; that the solutions to these issues necessitate engagement in multi-, trans-, and inter-disciplinary research; that implementation of these solutions necessitate engagement in extension, education, and outreach at all levels of our communities; that everywhere in Hawai'i is coastal.

## **GUIDE TO PROPOSERS**

To achieve the Program's mission and goals, and to align our research portfolio with the goals and objectives of NOAA and the National Sea Grant College Program, proposals are solicited in support of the focus areas noted above and described below. The research carried out under each of the focus areas supports extension and education activities of Hawai'i Sea Grant's Centers of Excellence. [These centers](#) include: the Center for Smart Building and Community Design, the Center for Sustainable Coastal Tourism, the Center for Coastal and Climate Science and Resilience, the Center for Integrated Knowledge Systems, the Center for Water Resource Sustainability, and the Center for Marine Science Education. Information on the work of these centers can be found on the Hawai'i Sea Grant web site (<http://seagrantsoest.hawaii.edu/>). Proposers are encouraged to develop proposals that will directly complement and help advance the work of these centers. Extension faculty assigned to the centers are available to assist in developing the outreach and educational components of the proposal (see "Formal Extension/Outreach Proposal Content" guidance below).

Research projects which address one or more of the cross-cutting themes as they relate to the focus areas are particularly encouraged.

## **SEA GRANT FOCUS AREAS**

The following are rationale for each of the Hawai'i Sea Grant focus areas followed by example questions and/or topics of interest. ***These examples are not intended to be prescriptive but suggestive of elements appropriate to Sea Grant's mission.***

## Healthy Coastal Ecosystems

**Rationale:** Intensified development along the coast and related human activities are leading to water quality degradation, wetlands loss, invasive species, and a host of other challenges that must be understood and addressed in order to restore and maintain the healthy ecosystems that are the foundation for all life along the coast. Ecosystem-based management, reduction and mitigation of anthropogenic impacts, protection of critical areas, and regional habitat restoration are some of the avenues we have identified to address these challenges. Sea Grant research, education, and outreach initiatives must continue to play a major role in building our understanding of how these natural systems function, in advancing regional problem solving, and in supporting planners and decision-makers at all levels of government and in other sectors in moving toward an ecosystem-sensitive-based approach to managing coastal resources and the services that they provide. We seek research proposals that aim to protect, enhance, and/or restore habitats, ecosystems, and the services they provide, as well as proposals that aim to apply sound science, tools, and services to manage land, water, and living resources.

Examples of questions/topics:

- Scientific understanding and technological solutions that can inform and improve the management and conservation of natural, coastal, and ocean resources.
- What functions and services are provided by our coastal and ocean habitats? How can greater awareness and understanding of these services improve stewardship efforts?
- How can we sustain habitats, biodiversity, and abundance of coastal ecosystems, fish, wildlife, and plants?
- Development of habitat mapping and ecosystem assessments for use in coastal and marine spatial planning efforts.
- How can sustainable energy, water, and waste management policies and practices contribute to achieving healthy coastal communities that function within the carrying capacity of their ecosystems? What are the economic implications of these policies and practices?
- What strategies can enhance resilient ecosystems and watersheds in the context of changing conditions?
- What scientific results are needed by resource managers to understand the risks, options, tradeoffs and impacts for managing watersheds and coastal ecosystems?
- How can comprehensive and multidisciplinary research on innovative restoration techniques inform large restoration projects?
- How, and to what extent, did the ahupua`a system of management achieve sustainability, and how can we adapt and apply that knowledge and those strategies used for success in the past to improve the way we live and use natural resources today?
- What can be learned from contemporary efforts to apply Hawaiian knowledge and resource management practices to restoring social and ecological systems? What challenges and successes are encountered and how might these apply in other settings? How might such efforts be encouraged?
- How does a return to traditional resource management strategies (associated with the ahupua`a system) system affect water quality and sedimentation in wetlands and estuaries?
- How do invasive mangroves affect water quality and sedimentation in wetlands and estuaries?

## Resilient Communities and Economies

**Rationale:** Sea-level rise, increased number and intensity of coastal storms, and other climate-related changes are placing more people and property at risk along the Nation's coasts than ever before. These circumstances have major implications for ecosystem stability and for human safety and the economic vitality of coastal communities in the coming decades. It is essential that residents and leaders in coastal communities understand these risks and adopt strategies and policies to reduce their vulnerability as well as respond quickly and effectively when hazardous events occur. Hawai'i Sea Grant, with its strong education and outreach capabilities will play a major role in helping local citizens, decision-makers, and businesses understand and plan for these events and maximize their communities' abilities to prepare, respond, and recover when natural hazards strike. We seek research proposals that aim to prepare coastal communities to use their knowledge of changing conditions and risks to become resilient to extreme events, economic disruptions, and other threats to community well-being. Also of interest are proposals that can address how to sustain water resources and protect them to meet existing and emerging needs of the communities, economies, and ecosystems that depend on them.

Examples of questions/topics:

- Analysis of public perceptions of risks associated with coastal natural hazards (e.g., coastal flooding, hurricanes, tsunamis, sea-level rise, etc.).
- How can land-use policies and siting decisions be optimized to reduce human populations' vulnerability to coastal natural hazards and climate change impacts (e.g., sea level rise, ocean acidification, and increased sea surface temperatures), and what are the implementation strategies?
- What new technologies, construction products, planning tools and guidelines, or model policies can be used by local governments to increase resiliency to coastal natural hazards (e.g., water level changes)?
- Analysis of the socio-economic costs and benefits of implementing different adaptation and resilience actions for communities or states, including managed retreat.
- How can we enhance real-time storm surge models and products to include meteorological, land use/land cover, and improved boundary and wave elevations data to better predict impacts from storms at local or regional scales?
- How does the built environment (e.g., buildings, infrastructure, and transportation networks) impact ecosystem health, public health, and the economy?
- What are the primary factors for communicating risk to coastal communities for improving community resilience to coastal natural hazards?
- How can we develop the coastal environment to reduce human populations' vulnerability to natural hazards and climate change impacts (e.g., sea level rise)?
- Economic analysis of cost and benefit projections of climate change adaptation strategies.
- Are there engineering and community solutions from other parts of the country or the world that could inform beach management in Hawai'i?
- How do development patterns and land-use decisions in Hawai'i impact natural resources (e.g., water, habitat, living marine resources) within the coastal environment?

## Sustainable Fisheries and Aquaculture

**Rationale:** The US has witnessed the decline of many of its major wild fisheries while at the same time seafood consumption is on the rise, resulting in a seafood trade deficit of about \$9 billion a year. Overfishing, habitat degradation, and increasing competition among coastal users have put our fishing industry in great jeopardy. Seafood safety is a growing concern as international trade increases and fish diseases and contamination become bigger problems. Aquaculture presents new opportunities to meet the growing seafood demand, but raises environmental and other concerns that need to be addressed for its full potential to be realized. Additionally, traditional forms of aquaculture in the Hawaiian Islands are in the process of being revitalized and restored, and Hawaiian fishponds across the state are at various stages of restoration towards the realization of fish production. Sea Grant has key roles to play in advancing our understanding of the nature of these challenges and opportunities and in using its research, education, and outreach capabilities to support informed public and private decision-making and management activities that will lead to a sustainable supply of safe seafood into the future.

Examples of questions/topics:

- How can we support, enhance, perpetuate, utilize, and learn from the indigenous cultural heritage of the Hawaiian Islands to promote sustainable fisheries and aquaculture?
- How can our recreational fisheries be more sustainably managed? What scientific results do recreational fishermen need to be more efficient, sustainable, and responsible in their use of coastal and freshwater resources?
- What can we learn from historical/traditional methods of ecosystem management, agroforestry, capture fisheries, and fishponds to inform and improve current practices in aquaculture, aquaponics, and hydroponics and improve food security?
- How can research results inform new solutions and new technologies to aid management of local fisheries and local aquaculture?
- How can emerging systems or technologies be developed that will advance aquaculture in Hawai'i? What activities will help stimulate aquaculture production by nascent industries?
- How can production of freshwater and marine finfish, algae, and shellfish aquaculture in coastal waters be increased in a sustainable manner?
- What research is needed to develop offshore culture methods or recirculating systems for freshwater and marine species of algae or finfish?
- Increasing the resiliency of fisheries and aquaculture systems to natural hazards and changing conditions.
- How can local fisheries and aquaculture be resilient to issues of concern such as harmful algal blooms, storm events, flooding, pollution, warming, and acidifying coasts and oceans?
- How do invasive mangroves affect recruitment and migration of both native and invasive fish species?
- What are the key components of a functional food-web in traditional Hawaiian aquaculture systems (i.e., fishponds)?
- What species compositions of phytoplankton are ideal for supporting populations of juvenile native fish in estuaries?

## Environmental Literacy and Workforce Development

**Rationale:** With more than one-half of the US population living along or near the coast, it becomes increasingly important that communities and their federal, state, and local decision-makers have a fundamental understanding of the issues and trade-offs related to managing our coasts. Fundamentally, we must build social, human, and natural capital to address the multidisciplinary challenges and opportunities that we face. We cannot hope to address all of the issues with regard to the protection, use, and enjoyment of ocean and coastal resources unless we raise the level of understanding about the inter-connectedness and vulnerability of these resources. Equipping ourselves to deal with the challenges we face requires a wide range of educational activities: the design and execution of K-12 and adult education curricula and programming; teacher training; creation and application of usable knowledge for decision-makers; and recruitment for and provision of advanced marine professional education programs to build the social and human capital for success.

Examples of questions/topics:

- What knowledge and what processes enable the general public to engage effectively in the community planning process?
- How can we increase the environmental literacy of the general public with respect to changing conditions and adaptive management?
- How can we increase effective ocean literacy instruction for K-12 students by formal and informal educators?
- How can Hawai'i grow a skilled and diverse workforce that is able to address critical local, regional, and national needs related to our oceans and coasts?
- What types of outreach and communication are most effective in increasing awareness, understanding, and stewardships of watersheds, coasts, and marine resources?
- How can citizen science be used in collaboration with ocean and coastal research?
- What are the best ways to grow, recruit, and retain from diverse populations for career paths that support the needs of coastal communities?

## CROSS-CUTTING THEMES

The following cross-cutting themes are expected to play a significant role in the selection of goals and objectives in each of the focus areas.

### **Sustainability and Resilience**

For island communities in Hawai'i, sustainability of our natural resources is critical for our overall resilience. The cross cutting theme of sustainability and resilience is connected to both our natural and built environments and touches on a diverse array of topics including coastal development, water resources, and coastal tourism. Decades of population migration to the coast continue to transform our coastal landscapes and have greatly impacted coastal marine and estuarine habitats, and intensified demand on finite coastal resources. New housing development, recreational facilities, energy development activities, port expansions, and other public and private activities are bringing more people, jobs, and recreational opportunities to coastal communities. This coastal development, however, also increases the pressure on coastal ecosystems and freshwater supplies. Similarly, there are many demands on our water resources that impact the quality and quantity of water in the Hawaiian Islands. Hawai'i is nearly 100 percent dependent on groundwater for drinking water and yet much of the potable groundwater is used for purposes that do not require this level of quality (e.g., cooling towers for air conditioning, toilets, laundry, and landscaping/irrigation). It is clear that the increases in population and development simultaneously increase water consumption, while reducing groundwater recharge. These water resource-related issues are of significant importance historically to Hawai'i Sea Grant, as well as the University of Hawai'i Water Resources Research Center (WRRC), adding increased opportunity for synergistic pathways between these co-administered organizations. Finally, tourism has central importance for the state's economy and the environment. A key question is: "How can the tourism industry move forward on improving the economic condition of the state while simultaneously reducing the sector's environmental footprint and supporting habitat restoration?"

Examples of questions/topics:

- How does the built environment impact ecosystem health, public health, and the economy?
- What are sustainable carrying capacities for tourism in Hawai'i?
- What are the pathways toward balancing tourism's environmental footprint with our economy?
- To what degree could tourism in Waikīkī be energy and water independent? What are the technologies that would facilitate this, and what are the costs and benefits?
- How can traditional practices associated with flood control be adapted to increase water recharge to our aquifers and decrease runoff to our nearshore environment?
- What are the impacts on the nearshore and marine environment of cesspools and other onsite sewage disposal systems (OSDS) throughout the islands?
- What are the technologies that could be developed and/or implemented to move away from the use of cesspools in areas that cannot physically or monitarily connect to sewer systems?
- What are the potential social, economic, and policy impediments and incentives to developing a region wide industry for rainwater catchment?
- What impact does transportation, building, and community design and infrastructure have on energy and water-use efficiency?
- Engineering and cost-benefit analysis of water-production technologies (e.g., atmospheric condensation, wastewater reuse and recycling, efficient capture and use of storm water, etc.).
- Analysis of the practicality of converting current wastewater treatment systems for efficiency, sustainability, and conservation of the environment.
- What science, tools, and technologies are needed to protect and sustain water resources and make informed decisions?

## **Climate Change Impacts and Adaptation**

This cross-cutting theme continues to be of importance to Hawai'i Sea Grant, and the recent co-administration of the Pacific Islands Climate Adaptation Science Center (PI-CASC) University Consortium creating increased prospects for synergistic pathways between these organizations. Climate change is occurring now and is accompanied by increases in the rate of sea level rise, more powerful storms, increased sea surface temperature, ocean acidification, increases in invasive species, and changes in rainfall patterns contributing to flooding and drought, all with implications for coastal residents and property and the long-range futures of human and natural coastal communities. Related to this, alternative energy development has emerged as a national priority, and coastal areas are now a major focus for alternative energy development (e.g., wind turbines, tidal buoys, liquefied natural gas terminals, etc.), promising significant economic and environmental impacts and benefits. All coastal-related planning and decision-making must now address climate change and alternative energy development for the long-term sustainability of coastal communities.

Examples of questions/topics:

- Research in the transportation, energy, water, and food production sectors to reduce greenhouse gas emissions and increase climate adaptation.
- What are the options for increasing carbon sequestration and what are the best metrics for measuring carbon sequestration on land and in the ocean?
- How can climate sciences inform coastal adaptation and planning?
- How can a mauka to makai, or ridge to reef, system approach be better utilized toward adaptation to climate changes?
- How is climate change impacting indigenous aquaculture systems, cultural practices, and important cultural sites?
- What are the impacts of climate change and ocean acidification on: near-shores fisheries distribution and productivity; ecological and human systems; and protected species?
- How can we apply indigenous values and practices to inform how we manage ocean and coastal resources in the future and guide adaptation to climate change?

## **Integrated Knowledge Systems**

The ability to protect land and water resources from depletion and still provide the materials and other resources needed by people and communities to thrive is called sustainability. Before container ships, airplanes, and the internet, the people and communities that populated the Hawaiian Islands necessarily lived sustainably, in large part, off their land, freshwater streams, and surrounding ocean. Much can be learned from the success of the Hawaiian resource management systems and associated practices of resilience and sustainability. While specific numbers are not known for certain, it has been estimated that a population ranging from 400,000 to 1,000,000 people across the Hawaiian Islands were supported by traditional Hawaiian approaches to resource management.

Examples of questions/topics:

- How can the translation of Hawaiian language newspapers and other literature inform our current practices and conventional science/research in areas of climate change, water resources, healthy ecosystems, community resilience, and sustainable development?
- Can synergistic outcomes informing conservation and wise use of natural, coastal, and ocean resources be generated through integration of cultural knowledge with conventional science?
- How can the ahupua'a system of management inform how we use natural resources today?
- Do indigenous structures such as lo'i and fishponds provide ecosystem services such as improved water quality, buffer from storm and flood impacts, and reduced sediment loads in nearshore coral reef ecosystems?

## FORMAL EXTENSION/OUTREACH COMPONENT

Outreach and Community Engagement: Researchers are strongly encouraged to identify and interact with their target audience as they develop their proposals (please see Statement of Research Kuleana on page 2). Researchers are asked to explain how the research will be extended to, and used by, those audiences who can utilize the information for making informed management and policy decisions.

### Pre-proposal requirement

For pre-proposals, investigators should address a general outline of their outreach plan in their narrative.

### Full proposal requirement

Should a pre-proposal be encouraged for full proposal development, Hawai'i Sea Grant will offer assistance to potential researchers in developing effective outreach plans for their projects. Initial outreach guidelines are available here.

In addition, Hawai'i Sea Grant will offer a series of office hours to address the question: "How is the proposed research engaging stakeholders and how are your research results useable and accessible by these partner groups?" Prior to full proposal submission, potential principal investigators (PIs) will have the opportunity to meet with members of Sea Grant's integrated outreach program. During these short sessions, the team will consider a researcher's proposed project and offer best practices for designing an effective outreach plan using Hawai'i Sea Grant or other resources. Anticipated outcomes from these meetings include a framework for developing, implementing, and assessing the outreach plan, along with guidelines for working with potential partners to assist in developing outreach plans as needed. **These meetings are by appointment only and will be held during the spring of 2019.** Meeting with Sea Grant outreach personnel is suggested but not required and does not guarantee project support. The lead PI is responsible for all components of the proposal and funded project. To schedule a session, send an email to: [waltonm@hawaii.edu](mailto:waltonm@hawaii.edu) no later than March 10, 2019 with "Extension Session Request" in the subject line.

Hawai'i Sea Grant is committed to ongoing enhancement of technology and information transfer of Sea Grant funded research results to stakeholders and relevant users. Toward this goal, **a well-developed plan for extension and outreach activities is to be included in all full proposals.** PIs are encouraged to seek guidance from Sea Grant extension faculty on outreach activities associated with proposed research projects. PIs who are unfamiliar with our extension faculty areas of expertise are encouraged to contact the Hawai'i Sea Grant Associate Director, Dr. Darren Okimoto, at 808-956-7031 or [okimotod@hawaii.edu](mailto:okimotod@hawaii.edu), and/or Program Leader, Ms. Maya Walton, at 808-956-6992 or [waltonm@hawaii.edu](mailto:waltonm@hawaii.edu), who can assist with identifying an appropriate [extension faculty member](#) to assist PIs with developing their outreach plans.

## EVALUATION CRITERIA

Hawai'i Sea Grant does not make decisions about funding proposals. Proposals are peer-reviewed and refereed. Reviewers and the review panels are chosen for their areas of expertise and use several criteria for evaluating research proposals:

- 1) Scientific merit
- 2) Relevance to Hawai'i Sea Grant's mission
- 3) Qualifications of the PI
- 4) Qualifications of Co-Investigator(s)
- 5) Value to graduate and/or undergraduate education
- 6) Benefit to Hawai'i
- 7) Overall value of the proposal

## APPLICATION PROCEDURE

To receive consideration, preliminary proposals are due electronically via the Hawai'i Sea Grant proposal submission website, eProjects ([http://www.soest.hawaii.edu/eProjects/login/login\\_login.php](http://www.soest.hawaii.edu/eProjects/login/login_login.php)) no later than **5:00 pm (Hawai'i Standard Time), Friday, November 30, 2018**. This is also where you will find instructions and templates for submittal. Principal Investigators are encouraged to submit electronically via eProjects well prior to the deadline to avoid delays associated with heavy internet traffic during the day on which proposals are due. Hard-copy, faxed, or emailed proposals, ancillary information or appendices will not be accepted nor evaluated. For detailed submission instructions and format guidelines see the Hawai'i Sea Grant eProjects website listed above. For questions on eProjects submission, please contact Dr. Hal Richman (808-956-8191; [eprojects@soest.hawaii.edu](mailto:eprojects@soest.hawaii.edu)). For questions concerning preliminary proposal content, please contact Ms. Maya Walton (808-956-6992; [waltonm@hawaii.edu](mailto:waltonm@hawaii.edu)) or Dr. Darren Lerner (808-956-7031; [sgd@hawaii.edu](mailto:sgd@hawaii.edu)). For questions on fiscal matters, please contact Ms. Henrietta Yee (808-956-3571; [yeeh@hawaii.edu](mailto:yeeh@hawaii.edu)). Full proposals will be invited from successful peer reviewed and refereed preliminary proposals.

***We will not consider preliminary proposals from principal investigators or co-investigators who have previously failed to meet Hawai'i Sea Grant fiscal and administrative reporting requirements.***

### Required Non-Federal Match

A 1:2 (non-federal match dollars: Hawai'i Sea Grant dollars requested) non-federal fund match is required for all funds requested from Hawai'i Sea Grant. This requirement is mandated by the US Federal Government and as such no waivers for match can be entertained. Principal investigators will be required to provide actual match, legal documentation of promised or pledged match, and/or audit defensible documentation of in-kind match prior to the awarding of first year funds. For questions on acceptable match, please contact Ms. Henrietta Yee (808-956-3571; [yeeh@hawaii.edu](mailto:yeeh@hawaii.edu)).

### Other Federal/University of Hawai'i Requirements

Funding cannot be issued to successful applicants until the Principal Investigator has obtained approval(s) from the following as applicable: 1) Use of Human Subjects (outreach projects, surveys, etc.); 2) Use of Vertebrate Animals (Institutional Animal Care and Use Committee [IACUC]); 3) Health and Safety (compressed gas diving, radioactive material, importation of micro-organisms; use of recombinant DNA). Depending on the nature of the activity proposed, other approvals/certifications may also be applicable. Non-UH entities will be responsible for applicable federal assurances.

### Graduate Trainee Requests

Please note: there is an entry opportunity in the on-line application within eProjects to request a graduate student trainee. Should you be requesting a graduate trainee and submitting a full proposal, you will be required to demonstrate and provide 50 percent non-federal funding match for all graduate trainee funds awarded. The match requirement for a graduate assistant is \$18,546. This is based on a total value of \$37,091 composed of \$23,028 (GA Step 9) salary, \$3,185 fringe benefits (13.83% est.), and Indirect Cost of \$10,878 (41.50% of total cost).

### How many proposals can I submit?

An individual may participate as a Principal Investigator (PI) or Co-Investigator (Co-I) on **up to two preliminary proposals** submitted to Hawai'i Sea Grant. Preliminary proposals in excess of the two preliminary proposal limit for any PI or Co-I will be returned without review.