UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

REQUEST FOR PRELIMINARY PROPOSALS
2009-2011 Biennium Grant Award Cycle

OVERVIEW

Preliminary proposals are requested for University of Hawaii Sea Grant College Program (UH Sea Grant) funding in 2009-2011. UH Sea Grant is one of 32 Sea Grant 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 is a network of more than 300 participating institutions, drawing on the talents of over 3,000 scientists, engineers, educators, students and outreach specialists nationwide.

Sea Grant supports an integrated program of applied research, outreach, and education addressing marine and coastal issues of public concern. Information generated by UH Sea Grant-funded research reaches stakeholders via UH Sea Grant extension and communications activities in Hawaii and via the national network. Coastal and ocean literacy programs are supported at all levels.

THE 2009-2011 PROGRAM

Faculty from universities and colleges in Hawaii, Guam, American Samoa, and the U.S.-affiliated insular Pacific region are invited to submit proposals. Funding begins February 1, 2009 and ends January 31, 2011. Not including funding for graduate assistantships, a typical award is $30,000/year but may range from $10,000 to $60,000 inclusive of indirect costs (companion graduate assistantships for successful proposals are funded separately; please see additional information below).

Proposals are especially encouraged from the physical, social, and design sciences. UH Sea Grant is committed to encouraging the submission of rigorous proposals from investigators in the social and design sciences, areas of research that have been historically under-represented in the past. For additional information see 'Guidance for Investigators in the Social and Design Sciences'.

Pending anticipated federal funding, UH Sea Grant expects to fund 15 to 20 proposals in 2009-2011. Projects should: 1) be hypothesis driven; 2) demonstrate strong evidence of scholarly merit and be aimed at producing papers in peer-refereed journals; 3) involve mentoring of graduate and undergraduate students; and 4) identify and include developed strategies for transfer of research results to user groups.

The 2009-2011 Program will address the four National Sea Grant Focus Areas: **Sustainable Coastal Development, Coastal Hazard Resiliency, Healthy Coastal Ecosystems,** and **Sustainable Safe Seafood Supply**. Four cross-cutting themes of these focus areas are also of interest: **Globalization, Climate Change Impacts, Coastal and Ocean Literacy,** and **Decision-making Capacity**. Questions of interest associated with the above areas include: 1) how do human populations and the built environment impact and alter ecosystem health and processes; 2) what can be done to reduce the effects of human activity on ecosystem function; 3) how can we reduce vulnerability to coastal natural hazards; 4) how can marine-related technology improve our ability to enhance human health and provide a stable food supply while reducing environmental consequences; and 5) how can energy, water, and waste management policies and practices contribute to achieving sustainable coastal ecosystems and development. Studies approaching such issues from an integrated watershed-marine/coastal perspective (such as the Hawaiian *ahupua'a* model) are of interest.

GUIDE TO PROPOSERS

To achieve the Program's mission and goals, and 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 four focus areas noted above and described below. Research projects which address one or more of the cross-cutting themes as they relate to the four focus areas are encouraged.

NATIONAL SEA GRANT FOCUS AREAS

Sustainable Coastal Development

Rationale: Decades of population migration to the coast continue to transform our coastal landscapes and greatly intensified demand on finite coastal resources. New housing developments, recreation facilities, energy development activities, port expansions, and other business activities are bringing more people, jobs, and recreational opportunities to coastal communities. They are also increasing the pressure on coastal lands, water supply, traditional coastal businesses, and on the coastal culture and way of life. To accommodate more people and activity and resolve the growing number of conflicts, we must develop new policies and management approaches to balance the conservation and use of coastal, ocean, and Great Lakes resources. Sea Grant's well-established roles as an honest broker and source of unbiased information make it a key player in responding to the needs for sound information for decision-makers, for convening stakeholders to seek common ground, and for facilitating the development and implementation of new coastal policies, plans, management approaches and conflict resolution strategies related to sustainable coastal development and economies.

Coastal Hazard Resiliency

Rationale: Sea level rise, increased number and intensity of coastal storms, and other climate-related changes are putting more people and property at risk along the nation's coasts with major implications for human safety and the economic vitality of coastal communities in coming decades. It is essential that residents and leaders in coastal communities understand these risks and learn what they can do to reduce their vulnerability and respond quickly and effectively to these events. Sea Grant with its strong education and outreach capabilities can play a major role in helping local citizens, decision-makers and businesses understand and plan for these events and maximize their communities' ability to prepare, respond, and rebuild when natural hazards strike.

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 need to 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 in moving toward an ecosystem-based approach to managing coastal resources.

Sustainable Safe Seafood Supply

Rationale: The U.S. has witnessed the decline of many of its major fisheries at the same time that seafood consumption is on the rise, resulting in a seafood trade deficit of about $9 billion a year. Over-fishing, 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 is opening up new opportunities to meet the growing seafood demand, but it raises concerns that need to be addressed for its full potential to be realized. Sea Grant has key roles to play in advancing our understanding of the nature of these problems and opportunities and in using its research, education and outreach capacities to support informed public and private decision-making and management activities that will lead to a sustainable supply of safe seafood into the future.

CROSS-CUTTING THEMES

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

Globalization. Globalization of technology, people, finance, products, education, and decision-making is one of the major trends in the world today. The value of goods imported by the U.S. has doubled since fiscal 2000, with major implications for U.S. businesses, port capacity, and product safety. Ecosystem health is affected by factors beyond local, regional, and national borders. Today, people and business have to function in a highly-competitive global economy. A significant amount of policy development is taking place in international forums and being brought to national governments for ratification. All coastal, ocean, and Great Lakes related thinking and action now requires a global perspective.

Climate Change Impacts. Climate change is accompanied by increases in the rate of sea level rise, more powerful storms, and ocean acidification, all with implications for coastal residents and property and the long-range futures of human and natural coastal communities. Alternative energy development has emerged as a national priority and coastal areas are now a major focus for alternative energy development: LNG terminals, wind turbines, tidal buoys, etc., with significant economic and environmental impacts. All coastal-related planning and decision-making need to take climate change and alternative energy development into account.

Coastal and Ocean Literacy. With more than half of the U.S. population living along or near the coast, it becomes increasingly important that the American public and its federal, state, and local decision-makers have a fundamental understanding of the issues and trade-offs related to managing our coasts. We cannot hope to address all of the challenges we face with regard to the protection, use and enjoyment of coastal, ocean, and Great Lakes 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: design and execution of K-12 and adult education curricula and programming, creation and application of usable knowledge for decision-makers, and recruitment for and provision of advanced marine professional education programs.

Decision-Making Capacity. Management and decision-making structures and processes are not keeping up with the growing pressures on the coastal environment. There is greater conflict among users at a time when decision-making remains fragmented and narrowly focused. Data and mechanisms are inadequate for identifying and addressing the short and long-term socio-economic impacts of the choices we face, the competing interests we need to balance, and the conflicts we need to resolve. Collectively, we need to transform our coastal management and decision-making processes in keeping with the growing complexity of the problems we face, and learn to integrate public and private decision-making and activities to create and sustain healthy human and natural coastal, ocean, and Great Lakes communities. Sea Grant must harness its particular strengths to work collaboratively with university, intra-agency, inter-agency, and public-private partnerships to find integrated solutions to problems at the local, state, regional, national, and international levels.

Formal Extension/Outreach Proposal Component

UH 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 outline for extension and outreach activities is to be included in all pre-proposals**. To assist principal investigators in identifying and conducting such activities, collaborative assistance from a UH Sea Grant extension faculty member will be provided. As a component of the full proposal process you will be asked to name the extension faculty member with whom you will work. Principal investigators invited to submit full proposals are encouraged to contact our extension faculty prior to submission to strengthen this aspect of their proposal (http://www.soest.hawaii.edu/SEAGRANT/extension/extension.php). Principal investigators who are unfamiliar with our extension faculty areas of expertise are encouraged to contact the UH Sea Grant Extension Leader, Dr. Darren Okimoto, okimotod@hawaii.edu , 808-956-7031, who will identify an appropriate extension faculty member to assist you in achieving your extension and outreach requirement.

APPLICATION PROCEDURE

To receive consideration, preliminary proposals are due electronically via the UH Sea Grant proposal submission website, eProjects (http://www.soest.hawaii.edu/eProjects/logn/logn_login.php) no later than **5:00 pm (Hawaii Standard Time), Wednesday, February 13, 2008**. eProjects will begin accepting preliminary proposals on December 12, 2007. Principal investigators are encouraged to submit prior to the deadline to avoid delays associated with heavy internet traffic during the day that proposals are due. Hard-copy, faxed or emailed proposals, ancillary information or appendices will not be accepted or evaluated. For detailed submission instructions and format guidelines see the UH Sea Grant eProjects website http://www.soest.hawaii.edu/eProjects/logn/logn_login.php. For questions on eProjects submission, please contact Dr. Hal Richman, 808-956-8191 or eprojects@soest.hawaii.edu. For questions concerning preliminary proposal content, please contact Dr. Darren Lerner, 808-956-7031 lerner@hawaii.edu. For questions on fiscal matters, please contact Mr. Bruce Hamakawa, 808-956-3011 or bhamakaw@hawaii.edu. Full proposals will be invited from selected preliminary proposals.

Preliminary proposals from principal investigators who have received past or current UH Sea Grant funding, but have failed to meet grant administrative reporting requirements, will not be considered.

Required Non-Federal Match

A 1:2 (non-federal match dollars:UH Sea Grant dollars) non-federal fund match is required for all funds requested from UH Sea Grant. This requirement is mandated by the U.S. 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 match, or audit defensible documentation of in-kind match prior to the awarding of first year funds. For questions on acceptable match, please contact UH Sea Grant fiscal officer, Mr. Bruce Hamakawa, 808-956-3011 or bhamakaw@hawaii.edu.

Graduate Assistant Requests

There is an entry in the on-line application to request a graduate student assistant; DO NOT include costs for a graduate student assistant in the preliminary proposal budget, simply indicate as directed in the application that you wish to be considered for such support. Please note, however, that should you be awarded a graduate assistant, you will be required to provide 50 percent non-federal funding match for all graduate assistantship funds awarded.