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2020 Coastal Management Fellowship Program

A proposal submitted by the Guam
Coastal Management Program, Bureau
of Statistics and Plans, Office of the
Governor of Guam.



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Section 1. Background and Introduction

Guam is an organized, unincorporated territory of the United States and is one of five U.S. territories with an established civilian government. Guam is the largest island in Micronesia, and was the only U.S. held Pacific island before World War II. During the war, Guam's environment and communities was subject to utter destruction due to the fierce fighting when Japanese and U.S. troops fought over this territory. After the war, the U.S. Department of Defense built-up its bases and facilities on the Island to what is not the largest military forward point installation to south Asia. This rapid growth in federal presence and an economic boom in tourism, coupled with a lack of enforcement in urban and land use planning has caused many challenges on our land and sea.

Guam faces critical risks to sustainability and survival over the coming decades. Climate change with increasingly severe monsoons, sea-level rise and increased coastal inundation events; dependence on global supply and pricing of petroleum and other commodity imports; and exposure to political and military conflicts in East Asia and the Pacific Rim are only a few of the risks that illustrate the enormity of Guam's challenges. While comprehensive planning and the regulatory framework to manage development has been making some modest improvements over the recent years. Planning and regulating our nearshore waters and its resources is in dire need of assistance.

The Guam Seashore Reserve is the area of land 10 meters from the mean high-water mark and water which extends seaward to the ten (10) fathom contour, and includes all islands within the Government's jurisdiction. The benthic characterization of this area can be described as a mix of fringing and patch reefs, lagoons, and sea grass beds and is home to over 5,000 known marine organisms. Uses in this area vary and include shipping lanes, small boat harbors, piers, marine preserves, mechanized personal watercraft zones, light beach recreational activity, Surface Danger Zones and Permanent Danger Zones to name a few.

In 1974, the 12th Guam Legislature passed P.L. 12-108, the Territorial Seashore Protection Act ("Act"). This Act created the Seashore Reserve and mandated that a Seashore Reserve Plan (Plan) be developed to protect, preserve, and manage this valuable resource. Much of the work to draft the Plan took place from 2000 to 2013 and to date, the plan remains in draft form and has never been submitted to the Legislature or through the Territorial Planning process for adoption.

Section 2. Goals and Objectives

The goal of this project will be to work under the Bureau of Statistics and Plans' (Bureau's) central planning authority to update the draft Plan in conjunction with partner agencies in order to have the Plan submitted through the Guam Territorial Planning process for adoption. To accomplish this goal, the fellow will:

Objective 1, Conduct review and compile studies of all factors that significantly affect the seashore reserve to include the review of the draft plan, policies and planning regulatory framework, to conduct a literature review of successful national marine planning documents, to conduct regular meetings to obtain stakeholder feedback, and to update the draft Plan based on each of the four elements of the plan using the methodology described in Section 4, Project Description.

Objective 2. Coordinate with GCMP and network agencies to conduct the public hearing and Plan adoption.

Section 3. Milestones and Outcomes

The following table presents the anticipated project milestones and outcomes associated with each project objective.

Millstones and Outcome	Qtr 1			Qtr 2			Qtr 3			Qtr 4			Qtr 5			Qtr 6			Qtr 7			Qtr 8		
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
Project Startup	x																							
Coastal fellow network Introductions		x																						
Objective one		X	X																					
Component 1				x	x	x																		
Component 2							x	x	x															
Component 3										x	x	x												
Objective 2												x	x	X										
Pre final Plan																X								
Publish Notice of Drat Plan																	X	x						
Final conclusions and recommendations																			X					
Public Hearing																				x				
Plan Submission to Governor																					x	x		
Plan Submission to Legislature																							X	x

Section 4. Project Description

Goal and Objective(s)

Advancing coastal management through planning and effective local governance, requires conceptualization and implementation of multi-tooled, place-specific strategies that enable the regulators, stakeholders and the community to support the full spectrum of the Plan’s priorities. Critical to the success of the Plan is the development and institution of a framework and capacity to support an effective public policy process that facilitates communities and stakeholders to determine how the seashore reserve is sustainably used and protected for future generations. Therefore, the goals of this proposed project are to 1) inform coastal and marine spatial planners and decision-makers regarding the ecosystems and environment in the Guam area, and 2) provide them with the opportunity to help inform and contribute to the Guam Seashore Reserve Plan and through a collective and data driven approach, submit the Plan for adoption.

Approach

This project will be focused on finalizing the draft Guam Seashore Reserve plan and will be composed of two components.

Component 1: Compilation of existing Coastal and Marine Environment Baseline data

This project will create an inventory and maps of important biological and ecological areas and current human activities (and pressures) in the marine management area based on existing information collected from available sources in which GCMP will provide the network and contacts to the various data sources. The inventory will also address the variety of groups and sampling platforms pertinent to the characterization. The project team members will consist of the fellow, GCMP staff, and network partners and the project team will conduct the following tasks:

- Examine existing human uses and activities in regional waters, as well as active plans or planning efforts;
- Identify areas of multiple uses, as well as those of highest intrinsic user conflict;
- Identify human uses which may pose increasing pressure due to cumulative impacts;

- Develop narrative descriptions and visual representations that summarize these uses and short-term options to mitigate conflicts;
- Identify potential coastal and ocean use trends;
- Identify any existing valuations of regional ecosystem services; and
- Assess the findings to understand the current state of scientific knowledge for Guam's marine environment; identify areas that are not adequately characterized or not characterized at all;
- Identify scientific needs based on social and economic realities as well as gaps in scientific knowledge.

The first step in the process will be to organize and analyze the general categories of spatial information which include;

- Biological and ecological distributions including areas of known importance for a particular species or biological community;
- Spatial information about human activities;
- Oceanographic and other physical environmental features (bathymetry, currents, sediments) which in the absence of comprehensive biological data can be especially important for identifying different habitats and important processes, e.g., upwelling areas;
- Jurisdictional and administrative boundaries between local and federal waters (marine cadastre);

Deliverables will include a narrative on:

- Ecological characteristics of the marine area surrounding Guam for which data was collected.
- Particularly sensitive or ecologically important areas specific economic and social factors that need to be considered any sectors that depend on a certain type of marine area.
- Main pressures on the marine area, and are there any particular threats.
- Main driving forces likely to shape marine development in the near future.
- Description of present governance/stewardship landscape and its readiness to accelerate and expand coastal marine spatial planning (CMSP) dialog.
- Qualitatively describe information system assets and availability for use in open systems.

Component 2: Planning Area Alternatives

This component will work to define alternatives for the required elements in the Guam Seashore Reserve Plan. The baseline area will be determined through an alternative screening process that takes into account the connectivity between ecosystems, including the physical and biological needs necessary to sustain those ecosystems. The land, land/sea interface, and coastal zone will be considered within the area as each has a direct impact upon the other. In addition, the economic, social, and religious needs of the island inhabitants, as well as the needs of the local, state, and Federal government agencies that operate in the area would be taken into account. Alternatives will range in size and general area based on items such as legal local and federal zones to areas that encompass ecological zones. To determine each alternative, stakeholders with knowledge, experience, and judgments from various disciplines will be convened to determine the suite of alternatives, which will be presented in the Plan. For each alternative, suggested sustainability goals for that area will be

outlined along with the various ecosystem (i.e., physical, biological) and human related (i.e., economic, social, military) aspects that must be maintained to meet them.

The following activities will be conducted under this component:

- Empanel an inter-disciplinary agency working group with oversight from the Guam Coastal Management Program.
- Hold working group meetings to establish a component work plan.
- Convert available data (discovered under Component 1) for use as planning area boundary layers using GIS. Such layers could include, but are not limited to, data on topography, geology, benthic and pelagic habitats and ecosystem boundaries, current land and ocean use information (e.g., conservation, agriculture, military danger zones, recreational and urban areas, underwater cables, dredged material disposal areas, marinas), legal boundaries or marine cadastre (e.g., EEZ, State boundaries), in-coming and out-going vessel traffic patterns, areas set aside for special uses (e.g., marine sanctuaries, areas closed due to national security reasons), known fishing grounds, areas of known contamination or degradation, and public access locations.
- Develop a range of spatially-based and GIS-documented coastal and marine spatial planning area alternatives for the Guam pilot area.
- Present planning area alternatives to the working group and public comment and input on alternative specifics and preferences.
- Identify a preferred area for the Guam area in which the marine spatial plan will allow sustainable, safe, secure, efficient, and productive uses of the ocean while maintaining compatibility among uses and reducing user conflicts and environmental impacts.
- Document the process, data and techniques used to generate the alternatives. The documentation will highlight future ecosystem-based management approaches that address cumulative effects to ensure the protection, integrity, maintenance, resilience, and restoration of the ocean and coastal areas while promoting multiple sustainable uses.

Deliverables will include:

A report outlining the process used to develop Planning area alternatives along with a range of spatially-based and GIS-documented area alternatives with a preferred planning area specified, if consensus is reached.

Component 3: Drafting the Guam Seashore Reserve Plan

This project will be supported by the entire staff of the Guam coastal management program and its network partners, to include assistance from the Attorney General of Guam who will provide legal counsel and opinions as the plans and rules are drafted. The fellow will work with GCMP to go through the planning process and articulate the narrative to describe the plan as it relates to the following elements.

- I. A land-use element.
- II. A conservation for the preservation and management of the scenic and other natural resources of the seashore reserve.
- III. A public access for maximum visual and physical use and enjoyment of the coastal reserve by the public.
- IV. A recreation element.
- V. A population element for the establishment of maximum desirable population densities.
- VI. An educational or scientific use element.

Each of the elements will have a defined planning area that will be identified through the stakeholder engagement process, in which a vision description for each area will be articulated. The elements will include a defined list of management principals, in which the resources will be characterized. Uses of those resources will be identified as well as future alternatives. Using decision support tools, management measures will be established and an evaluation process will be formulated.

Outputs will consist of the following.

- Recommendations for the governmental policies and powers required to implement the plan to include the organization and authority of the governmental agency or agencies which will assume permanent responsibility for its implementation.
- Publish objectives, guidelines, and criteria for the collection of data, the conduct of studies, and the preparation of recommendations for the plan.
- Prepare its definitive conclusions and recommendations, including recommendations for areas that should be reserved for specific uses or within which specific uses should be prohibited.
- A final draft plan ready for submission to the Governor.

Section 5. Fellow Mentoring

The Coastal Fellow will be directly supervised by the Administrator of the Guam Coastal Management Program, who will also serve as the lead mentor. The fellow will be mentored on the Bureau's central planning authority and ways to engage the mandatory agency cooperation as outlined by statute.

The fellow will be treated with full rights of staff and will be included in all staff meetings, agency planning meetings, and all high-level meetings with Government Officials. Meetings include Executive Branch briefings with the Governor, Lt. Governor, and senior staff. Other meetings include briefings with Mayors, Legislative staff and Senators. The fellow will serve as the subject matter expert and will lead meetings on matters pertaining to the advancement of adopting the Guam Seashore Reserve Plan.

The fellow will be afforded opportunities to attend any trainings offered to GCMP staff both on and off island. On island trainings include agency conference such those hosted by the Center for Island Sustainability, Guam Homeland Security, Office of Civil Defense, Guam Environmental Protection Agency and local trainings provided by NOAA's Learning services or those on Digital Coast. Off-island training could include a mix of attending/presenting at the Pacific Risk Management Ohana conference, Regional and National Program Managers meeting, Coastal States Organization meetings and other national conferences.

Section 6. Project Partners

The Guam Coastal Management Program's goal is to cause to create the responsible and balanced use of Guam's coastal resource through improving management and policy systems, optimizing planning, and improving government services. The GCMP draws its authority under Title 5 of the Guam Code Annotated, Chapter 1, Office of the Governor Article 2, Central Planning under the Bureau of Statistics and Plans. The fellows' work will be integrated into the Bureau's partner network through two key initiatives under the Bureau's authorities which consist of 1), updating and adopting elements of the Comprehensive Development Plan, and 2) ensuring cooperation of other departments (5GCA Ch1

Article 2 §1205-1206). The fellow's work to complete Guam Seashore Reserve Plan will help by providing clarity and a vision for the seashore reserve submerged lands thereby helping to achieve Guam's land use policy goals as stated in an Executive Order.

Executive Order 78-37.

Section A. Governmental Processes Policy

More effective administration of natural resource related laws, programs, and policies shall be achieved through:

- revision of unclear and outdated laws and regulations,
- improved coordination among local agencies,
- improved coordination between territorial and federal agencies,
- educational and training programs for local government personnel, and refinement of supporting technical data.

This Executive order and planning mandates apply to all government agencies and instrumentalities of the Government of Guam. The partnership will include the Department of Land Management, Department of Public Works, the Department of Parks and Recreations, the Department of Agriculture, Guam Environmental Protection Agency, the University of Guam. The office of Homeland Security, The Mayors Council of Guam.

Other efforts and partners

The fellow will participate in the Application Review Committee, which was created by Executive Order 96-26 to provide technical support to the Guam Land Use Commission (GLUC) who is responsible for zoning and enforcement of the Guam Seashore Reserve. The GLUC is also the same body as the Territorial Seashore Protection Commission. The fellow will participate in Working Groups under the Climate Change Resiliency Commission under Executive Order 2019-19 by informing the commission on ocean issues.

Section 7. Cost Share Description

The fellow will be housed in the Guam Coastal Management Program under the Bureau of Statistics and Plans which is located at the Governor Ricardo J. Bordallo Governor's Office in Hagatna, Guam . The GCMP will provide a suite of in-kind support services such as administrative support and leadership provided by the Director of the Bureau of Statistics and Plans. In addition, GCMP will provide the fellow with a work area, computer workstation, copier access for printing and photocopying, telephone, internet access, and office supplies. The \$15,000 cost sharing requirements for the Coastal Management Fellowship will be funded with non federal dollars from the Bureau's general fund .

Section 8. Strategic Focus Area

Comprehensive planning and the effective enforcement of that plan can provide the pathway to solutions that work to solve many of our coastal and nearshore problems. The utility of comprehensive planning as a tool, enables this project to cover a broad range of strategic focus areas

that work to ensure our ecosystems are healthy, communities are resilient, and economies are vibrant. The transfer of data to management decisions in the Seashore Reserve Plan will allow for stronger policies that will better inform decisions and improve the effective management and regulations of the resources and uses in the seashore planning area.

Through a planning framework that engages the communities - trust can be built, transparency can be established, and by providing clarity and standards in governing regulations, efficiencies are created where by users are better able to plan or can prepare to meet the expectations of the regulatory process, and user conflicts are minimized as active and passive recreational uses are mapped and clearly defined.

In conclusion, the ongoing pressures of competing uses on Guam require better planning and enforcement through characterization of our local, biological, physical, social, and economic coastal and ocean environments. Guam needs to move from managing by assumptions to understanding ecosystem services and value, and use that data to inform leadership decisions and create a comprehensive marine spatial plan that will lead us into the future.