

2003- 2005 Coral Management Assistantship The Commonwealth of Puerto Rico Statement of Work

Location of the Project

The host agency for the 2003-2005 Puerto Rico Coral Management Assistantship is the Department of Natural and Environmental Resources (DNER) located within the Bureau of Coasts Reserves and Refuges. DNER's office is located in San Juan, Puerto Rico.

The Commonwealth of Puerto Rico, located 1,000 miles southeast of Florida, is almost rectangular in shape and is the smallest and the most eastern island of the Greater Antilles. Puerto Rico is very mountainous, except for the lowland coastal areas. It is part of the same volcanic island platform that includes the Virgin Islands. Surrounding the main island of Puerto Rico, there are two inhabited islands (Culebra and Vieques) to the east and three uninhabited islands (Mona, Monito, Desecheo) to the west. The coastal plain comprises 80 percent of Puerto Rico's readily developable land, and the coast lines of the main and offshore islands and keys measure approximately 620 miles.



Program/Agency Background

DNER was created by Law Number 23 on June 20, 1972. Its mission is to balance sustainable development with the conservation of Puerto Rico's natural resources. This entity was created to implement the operational phase of the environmental public policy established by the Constitution of Puerto Rico. It is the agency's responsibility to administer the use and conservation of the natural resources according to rules and regulations by means of the Constitution, the Environmental Quality Board, and related laws.

DNER administers and enforces regulations from more than 20 laws, including the Coral Reef Conservation Act (Law #147 of 1999), the regulation on extraction, possession, transportation and sale of coral resources in Puerto Rico, and the Fisheries Law (Law #278 of 1998). Among the agency's functions are:

- Wildlife and habitat conservation and preservation, which includes research, monitoring, and environmental education and outreach

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- Conservation and surveillance of territorial waters, submerged lands, and maritime zone
- Designation and management of natural reserves and state forests
- Preparation of management plans for natural reserves, state forests and special planning areas
- Evaluation of development projects and Environmental Impact Statements

Coral reefs represent a tremendously valuable marine resource, providing habitat for a myriad of marine organisms. Often considered the rainforests of the ocean, coral reefs are among the most bio-diverse marine ecosystems. Economically, reefs contribute to recreational and commercial fisheries, protect shores and beaches from the effects of erosion, and generate a significant amount of recreational tourism. Degradation of reefs in the Caribbean region has occurred from natural events and human activities. Natural events that have caused well documented damage to reefs include hurricanes, diseases that affect certain species of hard coral, and the mass mortality of herbivores, such as sea urchins. Destructive activities from human practices include sedimentation from runoff, physical damage from recreational and commercial activities, and over-fishing and damaging fishing practices.

DNER has accomplished several goals regarding coral reef protection. DNER has established a Natural Reserve system that includes 3 percent of the insular shelf. The Natural Reserve system supports coral reef research and monitoring activities in Puerto Rico. Baseline characterizations have been conducted in 27 areas within 9 Natural Reserves. Currently, monitoring of coral reefs and fish populations, as well as water quality studies, are being performed in these areas. In addition, land use change analysis has been carried out for the west and south coasts, and will be conducted for the east coast by the Non-Point Pollution Control Interagency Committee, which was created by an Executive Order of the Governor. DNER would like to further protect Puerto Rico's reefs by writing a comprehensive coral reef management plan, by conducting education and enforcement activities, and by developing partnerships through an interagency coral reef committee.

Project Goals and Objectives

The goal of this assistantship project is to assist in finalizing a coral reef management plan for Puerto Rico. This management plan will include local action strategies that address the issues of overfishing, lack of awareness, recreational overuse, and land-based sources of pollution. The Coral Reef Management Plan will:

- Create a communication and coordination system among those who manage, study, or work to restore coral reef ecosystems
- Improve synchronization between federal and state/territory priorities
- Raise the profile of coral reef issues and concerns in related programs such as nonpoint and coastal zone management initiatives

Project Description

Below is a description of the overall project, with general milestones and outcomes. The

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assistant will be integrated into DNER and will network with partner organizations and agencies to complete this multifaceted project. The assistant will be involved in each of these tasks and some of them will be accomplished concurrently.

Phase I (3 months)

Orientation

The assistant will be introduced to staff and management of DNER and its partner agencies. The assistant will review background information regarding Puerto Rico's nonpoint source pollution program, coral reef initiative, and other coastal management issues. The assistant will participate with program staff in field visits, interagency meetings, and outreach activities. After participating in these activities, the assistant, with input from their mentor, will write a project work plan that will be reviewed and revised after the first year of the assistantship.

Outcomes:

- Familiarity with staff, operations, and resources of state coastal program
- Integration into DNER and clarification of role in project
- Develop a project work plan

Phase II (6 months)

Coordinate with the local action strategy core committees to develop a coral reef management plan for Puerto Rico

The assistant will review materials from the local action strategy core committees, all of which include representatives from several federal and state agencies. In addition, the assistant will coordinate and attend the meetings of all four core committees. These committees--overfishing, lack of awareness, recreational overuse and land based sources of pollution--will incorporate their frameworks and implementation strategies into an integrated coral reef management plan.

Outcomes:

- Familiarity with the four local action strategies that will comprise the coral reef management plan
- Assist in developing a proposed coral reef management plan for Puerto Rico

Phase III (9 months)

Assist in developing an Environmental Impact Statement (EIS) for the proposed coral reef management plan

Working with members of the core committees, DNER will develop an EIS for the proposed coral reef management plan. The assistant will conduct research to assist in writing the EIS, and assist in preparing the document for review. The assistant will work with the local action strategy core committees to incorporate the EIS into the proposed coral reef management plan.

Outcomes:

- Environmental and economical impacts of the proposed coral reef management plan on Puerto Rico identified
- A proposed coral reef management plan that will be brought to public hearings for review and comment

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Phase IV (6 months)

Coordinate meetings and prepare presentations to elicit public comments on the proposed coral reef management plan

The assistant will work with the core committees to facilitate discussions between DNER and the public through focus groups, community meetings, and public workshops. The assistant will reach out to communities and user groups most affected by overfishing, lack of awareness, recreational overuse, and land-based sources of pollution. The assistant will coordinate local meetings of stakeholders in Puerto Rico to allow for public hearings of the proposed coral reef management plan.

Outcomes:

- Identification of stakeholder groups
- Development of coral reef outreach materials for the public
- Compilation and assessment of comments and feedback on the proposed coral reef management plan
- Final coral reef management plan

Assistant Mentoring

The assistant will be mentored by Aileen Velazco, manager of Puerto Rico's Coral Reef Initiative. Aileen will be the primary point of contact for administrative questions and project guidance. Aileen and the assistant will communicate regularly to review timelines and evaluate progress.

The assistant will be considered part of DNER and will be expected to attend staff meetings and participate in program discussions. They will be provided opportunities to join staff on field visits, and in internal and external meetings. The assistant will have ample opportunities to meet education and outreach staff within all levels of government, nonprofit groups, and academic institutions. This project will provide an exciting opportunity to learn about aspects of an island coastal program and a wide range of coastal management issues.

The assistant will receive assistance in identifying key individuals with whom to meet and important sources of background information. They will be provided with the necessary resources to carry out the project.

Project Partners

DNER will actively work with other agency staff, community organizations, government agencies, universities, and non-governmental organizations.

Potential partners include:

- Caribbean Fisheries Management Council
- Puerto Rico Department of Agriculture
- Puerto Rico Department of Education
- Puerto Rico Department of Natural and Environmental Resources
 - Coastal Zone Program

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- Jobos Bay Natural Estuarine Research Reserve
- Marine Resources Division
- Navigation Office
- Ranger Corps Division
- Puerto Rico Department of Tourism
- Puerto Rico Department of Transportation
- Puerto Rico Environmental Protection Agency
- Puerto Rico Environmental Quality Board (EQB)
- U.S. National Marine Fisheries Service
- National Oceanic and Atmospheric Administration
- Non governmental and non-profit organizations
- Private consultants
- Superior Education Council
- University of Puerto Rico
 - Humacao Campus
 - Mayaguez Campus
 - Rio Piedras Campus
 - Puerto Rico Sea Grant College Program
- Other public and private universities
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife

In Kind Support

The assistant will have access to all of the amenities and services of agency staff, including office space and equipment, personal computer, telephone, fax, and e-mail. Use of agency vehicles will be permitted.

In addition, DNER will provide funds for administrative travel, purchases of supplies and software, as well as printing, photocopying, mailing, and incidental costs for project products.

Eligibility Requirements

- Bachelor's degree in resource management planning or related area of study with 2 to 4 years experience OR Master's degree in resource management planning or related area of study with 2 years experience
- Valid driver's license

Desired Background and Skill Sets

- Demonstrated oral, written, and interpersonal communication skills
- A proven ability to be well-organized and able to manage and prioritize multiple tasks
- Experience working on coral reefs and in tropical climates
- Proficient in Spanish
- Public speaking, events planning, and meeting facilitation experience
- Ability to work independently

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- Creative, flexible, adaptable
- Experience living and working in another culture or in an island community
- Experience working with different user groups
- Experience in natural resource planning and policy implementation
- Project management experience
- Proficient with MS Office