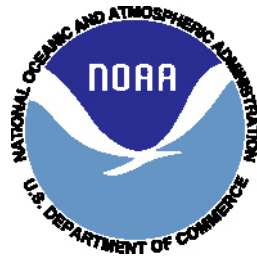


# Final Evaluation Findings

## Puerto Rico Coastal Management Program

March 2001 through May 2005



Office of Ocean and Coastal Resource Management  
National Ocean Service  
National Oceanic and Atmospheric Administration  
U.S. Department of Commerce

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## I. EXECUTIVE SUMMARY

The Coastal Zone Management Act (CZMA) of 1972, as amended, established the National Coastal Zone Management Program. Section 312 of the CZMA requires NOAA's Office of Ocean and Coastal Resource Management (OCRM) to conduct periodic performance reviews or evaluations of all federally-approved coastal management programs. The most recent evaluation of the Puerto Rico Coastal Management Program (PRCMP) examined the operation and management of the program from March 2001 through May 2005. The Puerto Rico Department of Natural and Environmental Resources (DNER) administers PRCMP. This document contains a description of the PRCMP, evaluation review procedures, the program's major accomplishments during the review period, recommendations, a conclusion and appendices.

This document describes the evaluation findings of the OCRM Director with respect to PRCMP during the review period. The fundamental conclusion of these findings is that DNER is implementing the federally-approved PRCMP. However, while the coastal program made progress in several areas during the review period, substantial programmatic issues regarding permitting and enforcement have not been addressed sufficiently.

The evaluation team documented a number of PRCMP's accomplishments during the review period. PRCMP improved its grant applications with more illustrative project descriptions and clearer deliverables. The program furthered its role as a leader in the innovative application of geographic information system technology among commonwealth agencies and programs. PRCMP developed the "Coordination, Review and Acquisition of Baseline Data" database to ensure appropriate consideration of coastal resource issues as part of DNER's permit review process. The program consistently worked to improve public access to Puerto Rico's coastal waters. PRCMP participated in both the U.S. and Puerto Rico Coral Reef Initiatives, supported the designations of six coastal areas as natural reserves, and made strong progress on the development of coastal zoning maps during the review period. The program has been a key participant in the Coastal Nonpoint Interagency Committee and has focused considerable time and effort on addressing coastal nonpoint source pollution. PRCMP worked on developing a new federal consistency guidebook and fact sheets to address the lack of clear, reliable information about the federal consistency process. The program also provided important programmatic and technical support to DNER's regional environmental educators.

The evaluation team also identified areas where PRCMP could be strengthened. OCRM's recommendations are in the forms of four Necessary Actions and seven Program Suggestions. As noted above, PRCMP currently is facing several challenging programmatic issues. Thus, Necessary Actions primarily focus on the need to improve the program's permitting, enforcement and federal consistency processes. Other critical

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needs include strengthening community outreach and increasing public participation in PRCMP. Suggestions also address program administration and public access.

## II. PROGRAM REVIEW PROCEDURES

### A. OVERVIEW

NOAA's Office of Ocean and Coastal Resource Management (OCRM) began its review of the Puerto Rico Coastal Management Program (PRCMP) in March 2005. The evaluation process involves four distinct components:

- An initial document review and identification of specific issues of particular concern;
- A site visit to Puerto Rico including interviews and a public meeting;
- Development of draft evaluation findings; and
- Preparation of the final evaluation findings, partly based on comments from the commonwealth regarding the content and timetables of recommendations specified in the draft document.

The recommendations made by this evaluation appear in boxes and bold type and follow the findings section where facts relevant to the recommendation are discussed. The recommendations may be of two types:

**Necessary Actions** address programmatic requirements of the Coastal Zone Management Act's (CZMA) implementing regulations and of the federally-approved PRCMP. Each Necessary Action must be implemented by the specified date.

**Program Suggestions** describe actions that OCRM believes would improve the program, but they are not currently mandatory. If no dates are indicated, the Department of Natural and Environmental Resources (DNER) is expected to address the recommendations by the time of the next regularly scheduled evaluation.

A complete summary of accomplishments and recommendations is outlined in Appendix A.

Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in CZMA §312(c). Program Suggestions that are reiterated in consecutive evaluations to address continuing problems may be elevated to Necessary Actions. OCRM will consider the findings in this evaluation document when making future financial award decisions relative to PRCMP.

### B. DOCUMENT REVIEW AND PRIORITY ISSUES

The evaluation team reviewed a wide variety of documents prior to the site visit, including: (1) 2002 PRCMP §312 evaluation findings; (2) federally-approved

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Environmental Impact Statement and program documents; (3) financial assistance awards and work products; (4) semi-annual performance reports; (5) official correspondence; and (6) relevant publications on natural resource management issues in Puerto Rico.

Based on this review and on discussions with OCRM staff, the evaluation team identified the following priority issues:

- PRCMP accomplishments during the review period;
- The effectiveness of the commonwealth in implementing, monitoring and enforcing the core authorities that form the legal basis of PRCMP;
- Implementation of the federal consistency process, including adherence to procedural requirements;
- The manner in which PRCMP is monitoring, reporting, and submitting program changes;
- The status of PRCMP grant tasks and reporting;
- The manner in which PRCMP is advancing the goals of the CZMA set out in §303(2);
- The manner in which recent changes in commonwealth government may affect PRCMP;
- The manner in which PRCMP provides technical assistance to local governments on coastal issues;
- The manner in which PRCMP coordinates with other federal, commonwealth and local agencies and programs;
- The manner in which the commonwealth has addressed the recommendations contained in the previous §312 evaluation findings released in 2002. PRCMP's assessment of how it has responded to each of the recommendations in the 2002 evaluation findings is located in Appendix B.

### **C. SITE VISIT TO PUERTO RICO**

Notification of the scheduled evaluation was sent to DNER, PRCMP, relevant federal environmental agencies, Puerto Rico's Resident Commissioner and regional newspapers. In addition, a notice of OCRM's "Intent to Evaluate" was published in the *Federal Register* on March 9, 2005.

The site visit to Puerto Rico was conducted on June 20-24, 2005. Ms. Rosemarie McKeeby, Evaluation Team Leader, OCRM National Policy and Evaluation Division; Ms. Kris Wall, PRCMP Specialist, OCRM Coastal Programs Division; and Ms. Gene Brighthouse, Manager, American Samoa Coastal Management Program formed the evaluation team.

During the site visit, the evaluation team interviewed PRCMP staff, senior DNER and other commonwealth officials, federal agency representatives, academic representatives and private citizens. Appendix C lists people and institutions contacted during this review.

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As required by the CZMA, OCRM held an advertised public meeting on June 22, 2005, at 6:00 p.m., at the Environmental Agencies Building, Road 8838, Kilometer 6.3, Sector El Cinco, Rio Piedras, Puerto Rico. The meeting gave members of the general public the opportunity to express their opinions about the overall operation and management of PRCMP. Appendix D lists individuals who registered at the meeting. OCRM's response to written comments submitted during this review is summarized in Appendix E.

The evaluation team gratefully acknowledges the support of PRCMP staff with site visit planning and logistics.



### III. COASTAL MANAGEMENT PROGRAM DESCRIPTION

Puerto Rico contains approximately 700 miles of coastline. The commonwealth features coastal ecosystems such as beaches, bioluminescent bays, coral reefs and mangrove lagoons. Puerto Rico's diverse habitats support an abundance of marine life, including a variety of threatened and endangered species.

NOAA's Office of Ocean and Coastal Resource Management approved the Puerto Rico Coastal Management Program (PRCMP) in 1978. The program's jurisdiction extends approximately 1,000 meters inland from mean high tide<sup>1</sup> and seaward from the mean low water mark to nine nautical miles. The Puerto Rico Department of Natural and Environmental Resources (DNER) administers PRCMP, which is based in San Juan. DNER's statutory responsibilities include: (1) granting mining concessions and franchises for surface and groundwater use; (2) managing the maritime zone, coastal waters and submerged lands; (3) managing forests; and (4) regulating sand extraction, hunting and fishing.

DNER and the Puerto Rico Planning Board (PB) are the principal permitting and planning agencies responsible for managing Puerto Rico's coastal zone. PB is part of the Office of the Governor. Its three full-time members and one part-time alternate are appointed by the Governor with the advice of the commonwealth Senate. PB is the sole land use regulatory authority in Puerto Rico. The Municipal Reform Act provides for the transfer of certain planning powers to municipal governments as they demonstrate their capacity to exercise them. Until such time, PB controls all uses on private and publicly owned land, including the maritime zone.

In addition to DNER and PB, the Environmental Quality Board (EQB) and the Regulations and Permits Administration (RPA) exercise responsibilities related to PRCMP implementation. EQB adopts basic environmental policy, regulates the preparation of environmental assessments and environmental impact statements, and adopts and enforces pollution control standards and regulations. RPA implements PB planning regulations, reviews development plans,<sup>2</sup> and issues construction and use permits.

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<sup>1</sup> PRCMP jurisdiction extends further inland where necessary to include key coastal systems.

<sup>2</sup> Following PB approval of land uses and densities.

## IV. REVIEW FINDINGS, ACCOMPLISHMENTS AND RECOMMENDATIONS

### A. OPERATIONS AND MANAGEMENT

#### 1. Administration

##### a. Program Changes and Program Document

When a coastal management program makes changes to its enforceable policies, it is required to submit the changes to NOAA's Office of Ocean and Coastal Resource Management (OCRM) for review and approval. This requirement ensures that changes are consistent with the federally-approved coastal management program. It also facilitates accurate application of federal consistency authority. Section 312 evaluations examine: (1) whether the coastal management program made changes to its program document during the review period, and (2) whether the program submitted changes to OCRM for processing as program amendments or routine program changes (RPCs). OCRM regulations define amendments as substantial changes in one or more of the following coastal program areas:

- Uses subject to management;
- Special management areas;
- Boundaries;
- Authorities and organization; and
- Coordination, public involvement and the national interest.

An RPC is a further detailing of a coastal management program that does not result in substantial change to the program.

The Puerto Rico Coastal Management Program (PRCMP) has operated under its original program document for 27 years, and previous evaluations have discussed the need for the program to review changes in its coastal management authorities and to submit appropriate changes to OCRM. In the 1990s, PRCMP began efforts to review and update its program document, which it anticipated would contain all relevant program changes. While the evaluation findings released in 2002 commended PRCMP for undertaking the review of its program document, they also noted that PRCMP should not postpone submission of all relevant program changes until presentation of the revised program document to OCRM. In response, PRCMP developed a schedule for submitting appropriate program changes to OCRM. OCRM appreciates PRCMP's efforts to develop the schedule and encourages the program to work closely with OCRM's PRCMP Specialist to ensure that: (1) program changes are submitted according to the agreed-upon schedule, and (2) all future program changes are forwarded to OCRM on time.

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As noted above, PRCMP's efforts to revise its program document have been underway for a considerable amount of time. While PRCMP did not complete the program document update during the current review period, it did make significant progress on the revision. Prior to the evaluation site visit, a draft revised program document was circulated among the commonwealth's primary agencies involved in coastal issues. Once relevant agency comments are incorporated into the revised document, PRCMP will hold a series of public meetings. After public comments are integrated into the document, it will be formally transmitted to the Puerto Rico Planning Board (PB) for consideration and adoption as the updated coastal element of the Island-wide Land Use Plan. Following approval by the Governor and OCRM, the revised program document will guide future coastal management funding and activities in Puerto Rico. OCRM congratulates PRCMP for significant progress in updating its program document and urges it to complete the revision as soon as possible.

**1. Program Suggestion: OCRM urges PRCMP: (1) to work closely with the appropriate commonwealth agencies to complete the program document revision as soon as possible; and (2) to submit the revised program document in English to OCRM for review within one year of receipt of final evaluation findings.**

### b. Grants and Performance Reports

OCRM awards grants to federally-approved coastal management programs for operations and other activities. Annually, each program submits a grant application, or work proposal, to OCRM for review and approval. The proposals provide project descriptions and deliverables for each task that the program intends to undertake. During the review period, PRCMP improved its grant applications with more illustrative project descriptions and clearer deliverables. In general, the program achieved desired results from funded tasks and built upon established projects. OCRM commends PRCMP for successfully submitting its FY 2005 award application through the Coastal and Marine Management Program, a new online information system designed to streamline the grant application and performance reporting processes.

**Accomplishment: PRCMP improved its grant applications with more illustrative project descriptions and clearer deliverables. The program also successfully submitted its FY 2005 award application through the Coastal and Marine Management Program.**

Each of PRCMP's annual grant applications is composed primarily of recurrent, continuing tasks such as "Active Management of Natural Reserves" and "Development Review." While such long-term tasks are valuable and address salient coastal issues, PRCMP should include creative, short-term tasks during each grant cycle as well. For example, the program might incorporate a task for a small-scale restoration project that involves local community members. Another potential short-term task could address the development of Internet tools and materials that would improve the transparency of the commonwealth's coastal permitting processes. Including short-term tasks into its annual

grant application will provide PRCMP with the flexibility to respond to emerging issues and to capitalize on opportunities as they arise.

**2. Program Suggestion: OCRM strongly recommends that PRCMP balance continuing tasks in its annual grant application with several short-term tasks that will provide the program greater flexibility in responding to emerging issues and opportunities. OCRM also strongly recommends that PRCMP dedicate federal coastal zone management funding to new PRCMP projects or initiatives and pursue consistent commonwealth funding for program administration, salaries and programmatic support.**

OCRM requires coastal management programs to submit semi-annual performance reports for each financial assistance award. Performance reports are important because they provide a consolidated source of information about progress on grant tasks. While PRCMP submitted its performance reports on time during the review period, the reports tended to be somewhat general. For example, updates on specific tasks often contained more background information about the task than specific information on task progress during the reporting period. Such descriptions made it difficult for OCRM to ascertain exactly what had been accomplished under each task during any particular reporting period.

**3. Program Suggestion: OCRM encourages PRCMP to improve the quality of its performance reports by eliminating extensive background information and focusing on clear, concise descriptions of each task's relevant accomplishments during the reporting period. Performance reports should clearly indicate what specifically has been accomplished under each task during the relevant reporting period only. The program should consider holding a performance report writing workshop or other such training for its staff.**

## 2. Information Technology

### a. Geographic Information System (GIS)

PRCMP has furthered its role as a leader in GIS development among commonwealth agencies and programs. GIS and related technology, digital cameras, satellite images, aerial photographs and sophisticated global positioning system (GPS) data are readily available to program staff. The program also regularly updates GIS information compiled by other federal and commonwealth agencies such as PB and the U.S. Geological Survey. PRCMP's use of GIS has amplified its capability to support decision-making through rapid and reliable access to pertinent natural and cultural resource as well as socio-economic information. In addition to using GIS to enhance its work, PRCMP looks for opportunities to expand the availability of GIS data to other programs and offices throughout the Department of Natural and Environmental Resources (DNER).

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During the review period, PRCMP hired a full-time GIS Specialist, a significant accomplishment for the program. The GIS Specialist is well-qualified and has a strong vision for GIS use both within PRCMP and throughout DNER. At the time of the site visit, the GIS Specialist was working on a variety of initiatives, including:

- Reviewing historic land cover change;
- Coastal monitoring;
- Creating a public access signage inventory and database of access facilities;
- Locating traditional accessways through aerial photographs;
- Collaborating on coral reef zoning;
- Assisting with natural reserve management; and
- Identifying critical areas for wetland management

OCRM commends PRCMP for its continuing leadership in the innovative application of GIS technology.

**Accomplishment: PRCMP has furthered its role as a leader in the innovative application of GIS technology among commonwealth agencies and programs. PRCMP also hired a full-time GIS Specialist and continued to explore opportunities to expand the availability of GIS applications throughout DNER.**

While recent efforts at DNER have promoted the increased use of digital cartographic data, satellite images, aerial photography and GPS, the department as a whole lags behind PRCMP in GIS application. For example, at the time of the evaluation site visit, DNER was not using GIS to support permit analysis. DNER programs and offices, particularly the new Permitting Secretariat, could greatly benefit from the regular use of GIS-based tools. OCRM suggests that DNER look to PRCMP's significant GIS capabilities for improved decision-making support systems, especially those that could be used for permit analysis.

### b. Metadata

Metadata development is another area where PRCMP has demonstrated leadership during the review period. Metadata is defined as data that is used to describe other data, or "data about data." Recognizing that metadata represents a critical component of coastal information, PRCMP undertook an important metadata project called Coordination, Review and Acquisition of Baseline Data or CRAB.

The CRAB dataset tracks permits for compliance with PRCMP objectives in key coastal areas identified by commonwealth and federal agencies such as PB, the Regulations and Permits Authority (RPA) and the U.S. Army Corps of Engineers (USACE). PRCMP worked with DNER's Endorsements Bureau to develop the dataset. The purpose of CRAB is to ensure appropriate consideration of coastal resource issues as part of DNER's permit review process. The dataset was created using a four-step process:

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- Coordination: PRCMP receives the Endorsements Bureau’s final comments on projects approved by the DNER Secretary. The comments are classified according to relevant task goals;
- Review: Staff identify the relationship between the current status of coastal zone projects and PRCMP objectives;
- Acquisition: Staff place the resultant data in a template according to previously developed guidance. Field 1 identifies the case number. Fields 2-6 identify geographic location. Fields 7-12 describe consistency with PRCMP objectives, and fields 13-17 reflect case status; and
- Baseline Data: Staff present data in tables classified by coastal wards and regional administrative areas.

OCRM applauds PRCMP for developing the CRAB database and strongly supports and encourages continuation of the program’s metadata efforts. OCRM also recommends that PRCMP work with relevant components of DNER and other commonwealth agencies to expand metadata efforts in support of improved permitting and enforcement.

**Accomplishment: DNER developed the “Coordination, Review and Acquisition of Baseline Data” database to ensure appropriate consideration of coastal resource issues as part of DNER’s permit review process.**

### c. Electronic Communication

Adequate Internet and e-mail access is critical for efficient and effective coastal management. Most PRCMP staff do not have department e-mail accounts. A few staff use personal e-mail accounts, but many have no e-mail account at all. At the time of the 2001 evaluation site visit, PRCMP had instituted dial-up Internet access via a local service provider on one office computer. However, as noted in the 2002 final evaluation findings, this limited access was inadequate to support the program’s technical, programmatic and administrative staff.

At least two previous evaluation findings have stressed the importance of improving PRCMP’s electronic communications capability and providing each staff person with an individual DNER e-mail account. During the 2001 evaluation site visit, PRCMP explained that little improvement in the program’s electronic capability had occurred because DNER was scheduled to move into a new building within a few months. Given the impending move, DNER was reluctant to upgrade the old building. The 2002 evaluation findings recommended that if PRCMP did not complete its move into the new DNER building within six months of the findings’ issuance, DNER should acquire additional e-mail accounts through local providers for PRCMP staff. Unfortunately, PRCMP did not move into the new building until shortly before the June 2005 evaluation site visit. At the time of the site visit, the new building was in the process of being wired for Internet and e-mail access. Thus, in 2005, the evaluation team found PRCMP’s electronic communications capability virtually the same as it had been in 2001. The evaluation team expressed disappointment with this situation to DNER leadership and was assured that all PRCMP staff would have Internet and e-mail access in the immediate

future. OCRM strongly urges DNER to take all necessary steps to complete this task as soon as possible.

## **B. PUBLIC ACCESS**

PRCMP allocated considerable staff time and resources to public access projects during the review period. PRCMP's public access program began with an inventory of coastal access sites, an assessment of coastal activities and recreational uses, and strategies to improve access. The program completed coastal access inventories for municipalities along Puerto Rico's western coast, and staff were developing a similar inventory for the northern coast at the time of the site visit. PRCMP also published a coastal access brochure for each segment of the coast as its inventory was completed, and the DNER Secretary made public announcements on television and in newspapers about the availability of the brochures. The popular brochures have been distributed throughout coastal municipalities in local government buildings, libraries and natural reserves. OCRM encourages PRCMP to consider developing an interactive public access guide online. Such a guide could provide the public with a map of Puerto Rico that identifies each coastal public access site. Users could click on each site to receive specific information such as the types of facilities available and permissible activities. Users could also provide feedback on the availability and quality of access at a site as well as report any problems.

In addition to public access inventories, PRCMP's public access program also emphasized improving signage during the review period. In the past, public access signs in Puerto Rico were not standardized. Primarily text-based signs were created in a variety of materials, shapes and designs. During the previous review period, PRCMP implemented a comprehensive public access sign program to: (1) compile a list of features that should be identified on access signs;<sup>3</sup> (2) use standardized symbols and the PRCMP logo; and (3) develop siting guidelines for sign placement. The program successfully created a standardized sign system that uses easily recognizable international symbols for recreational coastal activities. The signs also identify potential risks such as strong currents, high wave energy and coastal storms. During the current review period, PRCMP designed and installed signs for Pinones, Culebra, Boqueron, Mona Island, Caja de Muertos Island, Cordillera and Espiritu Santo, Aguirre Forest and Vieques.

PRCMP also participated in projects that improve public access while protecting critical resources. For example, staff initiated the planning and construction of wooden dune walkovers in Pinones Natural Reserve. The reserve's beach is a very popular surfing spot, and people trampled sand dunes in a number of places by repeatedly crossing over them to access the beach. PRCMP staff proposed dune walkovers as a solution, and they have been very successful. Beachgoers now use the walkovers instead of walking on the dunes, which have become reestablished under the walkovers.

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<sup>3</sup> Such as scenic views, swimming beaches, boat launches, bicycle paths, picnic areas, etc.

**Accomplishment: PRCMP consistently worked to improve public access to Puerto Rico’s coastal waters by: (1) developing excellent public access inventories and brochures; (2) designing and installing standardized public access signs; and (3) initiating projects such as dune walkovers on popular beaches.**

More than 50 percent of Puerto Rico’s population lives in coastal municipalities, and an increasing coastal population means increasing coastal development. An unfortunate corollary of increasing coastal development is that it can result in diminished public access to the coast. Many coastal jurisdictions have struggled with this use conflict.

In Puerto Rico, developers are required to retain a public accessway to the shore. For example, regulations currently require development projects to include a 20-meter setback as a public use easement. High-density development projects require an additional 30 meters of setback.<sup>4</sup> However, RPA can waive the setback requirement for a variety of reasons that, as discussed later in this document,<sup>5</sup> are not particularly transparent or well-understood. Thus, despite existing regulations, coastal development projects do not always include a public access component. Additionally, some development projects that retain actual physical access to the coast incorporate perceived barriers to access, such as gates or guards. A lack of open and clearly-designated public access deprives the public of their right to use the coast and may result in increased harm to natural resources as individuals look for alternative routes to the coast that may lead them through sensitive habitats. The relative ease with which developers are able to ignore public access requirements is a prime example of the need for improved enforcement described later in these findings.<sup>6</sup>

**4. Program Suggestion: OCRM strongly encourages PRCMP to work with all relevant commonwealth agencies to improve enforcement of public access requirements for development projects, including the removal of perceived barriers to access.**

## C. COASTAL HABITAT

### 1. Coral Reefs

Coral reef degradation is a coastal resource management issue of international concern. Puerto Rico has an estimated 15,709 acres of coral reef communities, not including Mona Island and the Tourmaline Reefs. These communities have limited distribution around Puerto Rico, with the majority of coral reefs located along the southwestern and northeastern coasts of the island. Recognizing the ongoing need for wise conservation and management of Puerto Rico’s coral reef resources, PRCMP continued to participate in both the U.S. and Puerto Rico Coral Reef Initiatives during the review period.

<sup>4</sup> 50 meters total.

<sup>5</sup> See discussion of permitting in §IV-G-1-a.

<sup>6</sup> See discussion of enforcement in §IV-G-1-b.



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Managers have determined that the most significant challenges surrounding coral reef conservation in Puerto Rico are land-based sources of pollution, recreational overuse, overfishing and lack of awareness. In an effort to address these challenges, staff have devoted considerable time and effort to developing local action strategies for each issue. Local action strategies serve as the foundation for a long-term coral reef management plan.

PRCMP staff serve on DNER's Scientific and Technical Advisory Committee (STAC) along with representatives from the Department's Bureau of Coasts, Reserves and Refuges, Bureau of Fisheries and Wildlife, Division of Marine Resources, Fisheries Laboratory, Division of Natural Reserves, Coastal Commonwealth Forests and Reserves, and the Ranger Corps. The STAC provides support for the Puerto Rico Coral Reef Monitoring Project. The goal of the project is long-term coral reef monitoring at selected sites in Puerto Rico and adjacent islands. The Coral Reef Monitoring Project builds on a baseline characterization study performed in 1999 and consists of five sub-programs: (1) coral reef monitoring; (2) water and substrate quality monitoring; (3) habitat monitoring; (4) disease monitoring; and (5) human use monitoring.

Optimal management of coral reef resources depends upon users who are well-informed about reefs' importance and vulnerability. As one participant noted during the site visit, managers do not manage resources, they manage the people who use the resources. During the review period, PRCMP supported education and outreach about coral reefs by assisting with the development and maintenance of a website.<sup>7</sup> The website targets key coral reef user groups such as fishermen and divers. PRCMP also worked with its partners to enhance a coral reef information database that eventually will be incorporated into Coral Reef Task Force and marine protected area information systems. OCRM commends PRCMP for its work to develop and maintain a coral reef information database and website.

**Accomplishment: PRCMP participated in both the U.S. and Puerto Rico Coral Reef Initiatives. The program provided support for the Puerto Rico Coral Reef Monitoring Project. PRCMP also supported education and outreach about coral reefs by assisting with the development and maintenance of a coral reef information database and website.**

## 2. Jobos Bay National Estuarine Research Reserve (JBNERR)

In addition to the National Coastal Zone Management Program, the Coastal Zone Management Act also established the National Estuarine Research Reserve System (NERRS). JBNERR, located within the municipalities of Salinas and Guayama on the southern coast of Puerto Rico, is one of 27 sites in the Reserve System. JBNERR, like PRCMP, is located within the DNER Natural Resources Administration's Bureau of Coasts, Reserves and Refuges.

<sup>7</sup> <http://www.coralpr.net>. This site is also used as the primary PRCMP website.

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JBNERR comprises approximately 2,800 acres of coastal wetland and subtidal habitats. Three coastal habitats of particular ecological and economic significance are found within the reserve's boundaries: (1) mangrove forests, (2) seagrass beds, and (3) coral reefs. These habitats form one of the most complex, diverse and productive coastal associations in the world, and therefore represent a valuable opportunity for environmental research and education. The reserve's rich natural resources and its designation as a National Estuarine Research Reserve make it an ideal site to pilot research, education and resource management initiatives that may be transferable to other coastal areas throughout the commonwealth.

During the review period, PRCMP and JBNERR worked together to upgrade the reserve's terrestrial and aquatic trails and to address issues such as coastal nonpoint pollution, illegal encroachment and construction on reserve property, and ecosystem restoration. OCRM recognizes and commends PRCMP and JBNERR for such efforts. OCRM also strongly encourages PRCMP and JBNERR to continue to strengthen their ties and to explore new opportunities for collaboration. For example, an integral component of NERRS' education efforts is the Coastal Decision-maker Workshop (CDMW). The purpose of CDMWs is to provide current environmental information to local decision-makers. The Coastal Training Program (CTP), which builds upon the success and experience of the CDMWs, is another key element of the NERRS' education program. CTP is designed to: (1) improve coastal stewardship at local and regional levels by increasing the application of science-based knowledge and skills by coastal decision-makers; and (2) increase dialogue and collaboration among decision-makers. Planning for the program includes:

- Establishing a training advisory committee;
- Conducting a market survey of training providers and an audience needs assessment;
- Developing a program strategy that outlines priority coastal issues to be addressed during the next three to five years; and
- Prioritizing audiences that the reserve plans to target with relevant programs, as well as a marketing plan.

The reserve's CDMWs and CTP present an excellent opportunity for PRCMP. In the past, JBNERR has offered outstanding workshops not only to coastal decision-makers, but also to community leaders, teachers, researchers and the general public. As described later in these findings,<sup>8</sup> there is a tremendous need for PRCMP to reinvigorate and expand outreach to local communities and to increase public involvement in the program. The program is also in serious need of a resource or tool that will address some of the commonwealth's permitting complexities as well as training for coastal permitting staff throughout Puerto Rico's regulatory agencies. These needs represent key training and outreach opportunities where the reserve could greatly assist PRCMP.

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<sup>8</sup> See discussion of outreach and public involvement in Section IV-G-2-b.

**5. Program Suggestion: OCRM strongly encourages PRCMP and JBNERR to continue to strengthen their ties and to explore new areas for collaboration. For example, OCRM strongly encourages PRCMP to pursue key training and outreach opportunities presented by JBNERR's CDMWs and CTP.**

### **3. Special Planning Areas (SPA)**

One of PRCMP's resource management tools is designation of SPAs. The SPA Interagency Committee, composed of representatives from DNER, PB, Environmental Quality Board, U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service and USACE, manages SPA designations. DNER serves as the Committee's technical secretariat. The Committee's primary goal is to address problems that may affect coastal and marine resource areas that are subject to management decisions by a variety of federal and commonwealth agencies. The SPA planning process has expanded negotiations and consensus building sessions between agencies. The Committee also has included other interested parties, such as local governments, nongovernmental organizations and community groups in coordination efforts.

PRCMP developed draft management plans for Guanica Southwest SPA, Bajura-Isabela SPA, Vieques SPA and Pandura-Guardarraya SPA. The plans are updated on a case-by-case basis and submitted to PB for review, public hearings and subsequent adoption as part of the Island-wide Land Use Plan. Additionally, at the time of the site visit, PRCMP was working to complete the draft management plan for Isabela Dunes SPA. OCRM encourages PRCMP to continue its work to prepare and update coastal SPA management plans as well as to promote improved coordination among regulatory agencies.

During the review period, PB adopted management plans for Pinones SPA, Tortuguero Lagoon SPA and Parguera Southwest SPA. PB also officially adopted the All Mangroves SPA. Unfortunately, PB has yet to approve the Jobos Bay SPA management plan; the development of the plan, under PRCMP's leadership, was cited as an accomplishment in the 2002 evaluation findings.

### **4. Natural Reserves**

PRCMP strongly supports the designation of coastal areas with high ecological value as natural reserves. During the review period, PB designated six coastal areas as natural reserves: Punta Guaniquilla, Belvedere, Cano Martin Pena, Cienaga Cucharillas, Tres Palmas and Cano Boquilla. Additionally, PB adopted an amendment expanding the boundaries of the Bosque Estatal de Boqueron Natural Reserve.

Once PB formally designates a natural reserve, PRCMP and relevant partners are responsible for developing and implementing its management plan. The management plan defines policy that regulates the uses of and activities in a natural reserve. During the evaluation period, PRCMP and its partners drafted a management plan for the Seven Seas Natural Reserve. At the time of the site visit, PRCMP was working to complete a

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draft management plan for the Cano Tiburones Natural Reserve. DNER noted that it will contract with a private firm to develop the management plans for Canal Luis Pena Natural Reserve, Arrecifes de la Cordillera Natural Reserve and Islas de Mona y Monito Natural Reserve. DNER is a member of the Canal Luis Pena Natural Reserve Management Plan Committee, Cordillera Natural Reserve Management Plan Committee and Islas de Mona y Monito Management Plan Interagency Committee.

In November 2003, PRCMP held a natural reserve management plan workshop for DNER technical staff. The purpose of the workshop was to establish a management plan template that could be adopted throughout DNER. Such a template would provide everyone working on the development of a natural reserve management plan with consistent guidance and a standard model. OCRM commends PRCMP for its work to designate natural reserves and to develop natural reserve management plans.

**Accomplishment: PRCMP supported the designations of six coastal areas as natural reserves during the review period. The program also contributed to improving and standardizing the development of natural reserve management plans.**

The 2002 evaluation findings expressed concern with the number of natural reserves that either had an outdated management plan or no management plan at all. The findings stated, “As a result [of having either an outdated or no management plan], it is unclear which activities are permissible or not permissible at many of the designated natural reserves. The lack of updated management plans for many of the natural reserves impedes effective management and wise use of these areas. Therefore, it is very important to promote the adoption of management plans for the designated natural reserves.” During the June 2005 evaluation site visit, PRCMP explained that once PB designates a reserve, staff immediately begin working on the management plan since they have most of the requisite information for the plan from the designation process. However, if a natural reserve is designated by law, the designation may be accompanied by a mandate that the management plan must be developed within a certain time frame – i.e. within a year of designation. Unfortunately, no additional staff or funding resources accompany such mandates. Therefore, staff must prioritize management plan development based on legislative mandates, available staff and other factors. OCRM reaffirms its position regarding the importance of accurate, current management plans for the commonwealth’s natural reserves and strongly encourages PRCMP to continue to develop natural reserve management plans. However, recognizing the critical significance of natural reserves in Puerto Rico, particularly given the commonwealth’s development pressures, OCRM would not wish PRCMP to forego a natural reserve designation opportunity in an effort to “balance” designations with management plan development.

### 5. Submerged Lands Zoning

The “Zoning Regulation for the Coastal Zone and Access to Beaches and Coasts of Puerto Rico” is a planning tool that was designed to guide the use and development of the

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coastal zone. The coastal zone is considered as a buffer zone area managed for recreation, education and the development and conservation of coastal resources. Natural reserves are considered secondary buffer areas managed for conservation and observational research. Zoning districts act as core natural areas that serve as central conservation or strict preservation zones. Through the regulation, zoning districts established by PB can be used to control the development of land, ocean floor, maritime waters, reefs, islets and adjacent islands out to a distance of nine nautical miles. The regulation's inland jurisdiction extends one kilometer or the additional distance necessary to include important coastal systems. PB uses five types of zoning districts to protect wetlands systems from degradation and destruction: (1) resource preservation; (2) fishing and aquaculture; (3) resource conservation; (4) mangrove forests; and (5) resource restoration.

During the review period, PRCMP made strong progress in the development of coastal zoning maps. PRCMP uses coral reef research studies and baseline data from wetlands and benthic maps to classify the marine, estuarine and palustrine systems as one of the five zoning districts noted above. As part of the planning process, PRCMP reviews and evaluates both interagency as well as public comments on the maps. Subsequently, PRCMP incorporates relevant zoning issues into the maps, which are then sent to PB for adoption as part of the Island-wide Land Use Plan.

As part of this work, approximately one-fourth of the Puerto Rico insular shelf from the shoreline to the shelf edge was mapped. Coral reefs, mangroves, seagrass beds and several other habitat types were mapped according to their position on the insular shelf. Coral reefs composed nearly half of the mapped area, and submerged aquatic vegetation accounted for more than 40 percent. Mangroves covered five percent of the mapped area. Such an inventory of coral reefs and associated habitats is necessary for identifying essential fish habitat as well as appropriate locations for marine protected areas.

**Accomplishment: PRCMP made strong progress in the development of coastal zoning maps during the review period.**

### D. WATER QUALITY

In 1990, Congress established the Coastal Nonpoint Pollution Control Program (CNPCP), which called for states to develop programs based on the implementation of management measures to reduce nonpoint pollution to coastal waters. The CNPCP works within the framework of existing Coastal Zone Management Programs developed under the Coastal Zone Management Act and Nonpoint Source Pollution Management Programs developed under the Clean Water Act. OCRM and USEPA fully approved Puerto Rico's Coastal Nonpoint Program (CNP) in 2000, making it the first program approval for a U.S. island territory and fourth overall in the nation.

During the review period, PRCMP played a significant role in CNP implementation through participation in the CNP Interagency Committee, which is composed of representatives from 14 commonwealth agencies and six federal agencies. The

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Committee coordinates implementation of CNP through monthly meetings and through the establishment of issue-specific working groups.<sup>9</sup> The Committee also developed a nonpoint source pollution control plan for Puerto Rico that includes the CNP five-year implementation plan and 15-year program strategy. Puerto Rico's CNP Interagency Committee is a strong example of many agencies with varied and sometimes overlapping jurisdictions successfully working together to address a complicated issue. Examples of the Committee's CNP activities include: (1) promoting the adoption of a guidance document that specifies nonpoint source management measures in coastal waters as the CNP's official technical guidance; and (2) conducting training and workshops on CNP issues such as planning and technical assistance, site selection and permitting, construction and inspection, and project management and monitoring. PRCMP's CNP efforts included work to:

- Compile a list of nonpoint source pollution control activities throughout the commonwealth;
- Create a septic tank inventory;
- Develop best management practices and management measures; and
- Implement demonstration projects.

OCRM congratulates PRCMP for its role in addressing coastal nonpoint source pollution through its efforts with the CNP Interagency Committee. OCRM also encourages PRCMP to continue to work through its partners to offer incentives or specialized training for project applicants in order to address difficult CNP issues such as erosion and sedimentation.

**Accomplishment: PRCMP has been a key participant in the CNP Interagency Committee and has focused considerable time and effort on addressing coastal nonpoint source pollution through implementation of the CNP.**

### E. COASTAL HAZARDS

Flooding is a significant coastal hazard in Puerto Rico. Not surprisingly, more than two-thirds of the land in the commonwealth at risk of flooding is located in the coastal plain. As commercial and residential development has expanded outward from core cities into coastal areas, the potential for property damage from flooding has escalated. Additionally, the effects of urbanization have contributed to an overall increase in flood-prone areas, resulting in flooding on properties that previously had not been at risk.

A variety of methods may be used to reduce flooding and flood damage, including:

- Constructing flood control projects;
- Reforesting upland watersheds;
- Reducing excessive grading and paving;

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<sup>9</sup> An example of such an issue is the Coral Reef Initiative Local Action Strategies.

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- Guiding urban expansion toward low-risk areas; and
- Prohibiting new structures in high-risk areas.

The last two of these examples, guiding urban expansion toward low-risk areas and prohibiting new structures in high-risk areas, are perhaps the most directly effective means of reducing flooding and flood damage. Within the networked PRCMP, such activities fall under PB's purview. PB's "Floodable Areas Regulation," adopted in 1972, is intended to prohibit inappropriate development in flood plains. Furthermore, the development control process is meant to provide some degree of protection against flood hazards. However, as described later in this document,<sup>10</sup> the coastal permitting process and enforcement efforts in Puerto Rico do not always achieve the intent of land-use regulations. During and subsequent to the evaluation site visit, the evaluation team received information about permitted construction projects in high-risk flood areas. The importance of addressing Puerto Rico's primary coastal hazard by reducing flooding and flood damage is another reason to improve the effectiveness of coastal permitting and enforcement in the commonwealth.

### F. COASTAL DEPENDENT USES

Industries that must occupy a coastal location to operate, such as ports and shipyards, are termed "coastal dependent." Puerto Rico's shoreline configuration and water depths limit the number of sites throughout the commonwealth that are suitable for coastal dependent industries. Additionally, certain types of development, while not coastal dependent, strongly benefit from a coastal location. Examples include power plants, which require a great deal of cooling water, and industries that use large amounts of imported products. Furthermore, other activities, including some kinds of recreation, tourism and urban development are also attracted to the same, limited sites.

Within the networked PRCMP, the responsibility for ensuring that coastal dependent industries are sited in appropriate locations lies with PB. The Board exercises its siting responsibility and seeks to resolve use conflicts through the development control process. PB's policies call for: (1) concentrating industries in the most appropriate areas; (2) promoting the most intensive use possible for industrial lands; (3) minimizing adverse impacts on the environment; and (4) locating urban development away from the shorefront to the maximum extent practicable. Again, effective coastal permitting and enforcement processes are necessary to ensure that the intent of land-use policies and regulations is executed.

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<sup>10</sup> See discussion of permitting and enforcement in Section IV-G-1.

## **G. GOVERNMENT COORDINATION AND DECISION-MAKING**

### **1. Permitting and Enforcement**

#### **a. Permitting**

It is critical for each coastal program to: (1) operate an effective and transparent permitting program; (2) monitor projects for compliance with permit conditions; and (3) adequately enforce its core authorities. During the site visit, the evaluation team extensively discussed the effectiveness of DNER and PRCMP in permitting, monitoring and enforcing the program's core authorities. As previously noted, PB is the commonwealth's sole land use regulatory body and retains the authority to issue development permits and federal consistency certifications. PB also is responsible for land use planning and zoning throughout Puerto Rico. RPA implements planning regulations, reviews development plans and issues construction and use permits. While DNER is PRCMP's lead agency, it has no formal role in the permit review process other than: (1) providing PB and RPA with comments on permit applications, and (2) issuing maritime zone concessions.

Previous evaluation teams also examined these aspects of PRCMP implementation and concluded that significant improvements were needed. For example, the 2002 evaluation findings contained the following Necessary Action:

Permitting: DNER will take action to ensure that all applications for maritime zone concessions are reviewed in accordance with the Regulations for Use, Surveillance, Conservation, and Management of the Territorial Waters, Submerged Lands Thereunder and the Maritime Zone, in a timely manner and with ample opportunity for public involvement. Comments made to PB on permit applications, in addition to the maritime zone issues, must be submitted in a timely manner. Criteria for issuing variances allowing development in the maritime zone must be well-established, publicized, and clarified if necessary. Hearings or other processes that make decisions on variances must be well-publicized. Information should be made available to the public in a central, easily accessible location, including a description of the permit process and instructions on the appropriate input for the public.

To ensure these activities are completed, DNER, working with other agencies, will: (1) establish a clear process describing how DNER meets its responsibilities under the maritime zone regulations, including criteria for variances, opportunities for public involvement, and timelines for providing information to PB and other agencies; and (2) enter into new or revised agreements with relevant commonwealth agencies clearly identifying each agency's roles and responsibilities in the PRCMP. The agreements should acknowledge and make full use of DNER's technical expertise, programmatic responsibilities, and monitoring and enforcement role (through the Ranger Corps). Comparable resources and mandates of the other agencies should also be highlighted in the



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agreements. This can be done by revising existing documents such as the joint permit application and the coastal management program document, and by establishing new legislation or regulations or through other means.

During the site visit, PRCMP staff and others described two efforts that they indicated would significantly improve the permitting process. Towards the end of the review period, DNER created a new Permitting Secretariat composed of three bureaus: (1) permits, (2) endorsements, and (3) specialized services. The new organizational structure includes an Assistant Secretary for Permits who reports directly to the Secretary of DNER. The goal of the new Permitting Secretariat is to bring together professionals from different disciplines to execute DNER's responsibilities related to permitting and endorsements. Additionally, PB has been developing a new Island-wide Land Use Plan for Puerto Rico. PRCMP is the coastal element of the plan. As it has in the past, OCRM encourages all such efforts to improve coastal permitting in Puerto Rico. However, at the time of the site visit, it was not clear whether or to what extent the creation of the Permitting Secretariat within DNER and the eventual adoption of the Island-wide Land Use Plan would address the coastal permitting complexities in the commonwealth.

Despite the efforts described above, the evaluation team did not see direct evidence of progress by PRCMP on the permitting Necessary Action contained in the 2002 evaluation findings. Permitting in Puerto Rico's coastal zone remains a very complicated, opaque process involving many agencies with varying jurisdictions. Coordination among permitting agencies is inadequate. Clear, consistent information and instructions are not provided to permit applicants or to the general public.<sup>11</sup> Indeed, it appears that such information may not even be regularly provided to relevant staff throughout the agencies with coastal permitting authority. The criteria and process used for issuing maritime zone concessions remain unclear and are not discernible by the public.

PRCMP and its partners must address these issues before the next regularly scheduled evaluation. OCRM requires PRCMP to begin this process by complying with the outstanding requirements of the permitting Necessary Action (cited above) from the 2002 evaluation findings. PRCMP must clarify and publicize the permitting process and criteria for issuing variances allowing development in the maritime zone. PRCMP must also provide information, including a description of the permit process and instructions on appropriate mechanisms for public input, to the public in a central, easily-accessible location. Additionally, PRCMP should provide training opportunities on the permitting process for DNER staff as well as staff in other agencies with coastal permitting authority. The program should consider collaborating with JBNERR on any training efforts.

Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in Coastal Zone Management Act §312(c). Failure to comply with the Necessary Action identified below may result in cooperative

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<sup>11</sup> This is a source of considerable frustration for the public as described in Section IV-G-2-b of this document.

agreement special award conditions withholding payment of a certain amount of the total award until the actions identified below have been completed or met.

**6. Necessary Action: PRCMP, working with all relevant networked agencies, will develop a strategy describing: (1) how it will comply with the outstanding requirements of the permitting Necessary Action contained in the 2002 evaluation findings, and (2) how it will provide training for appropriate agency staff on permitting. PRCMP must: (1) submit the strategy to OCRM within three months of receipt of final evaluation findings; and (2) complete implementation of the strategy within one year of OCRM's approval of it. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.**

b. Enforcement

As discussed in preceding sections of this document, effective and transparent permitting is critical to the success of each coastal management program. Sufficient enforcement is equally important. It is critical that appropriate staff monitor development and other projects to ensure that those responsible for a project: (1) have obtained all requisite permits; and (2) are adhering to all permit conditions.

PRCMP monitoring and enforcement is primarily conducted by DNER's Ranger Corps and Legal Division. Rangers are responsible for monitoring and surveillance in Puerto Rico's coastal zone; priority areas include natural reserves and special planning areas. Rangers conduct daily land and water patrols in order to identify violations of coastal laws and regulations related to sand extraction, illegal construction, mangrove destruction, hunting, fishing and boating. Rangers also participate in joint field inspections with DNER technical staff and RPA field inspectors to monitor illegal construction in the maritime zone.

The Legal Division provides support for the Ranger Corps' enforcement activities, particularly regarding natural reserves, special planning areas, the maritime zone, coastal wetlands and Culebra. Depending upon the nature of the violation, enforcement cases are handled either through administrative hearings or through the commonwealth court system. Division personnel prepare complaints, lawsuits, cease and desist orders, injunctions, eviction orders and other legal mechanisms to support enforcement in the coastal zone. The Legal Division also reviews deeds and other documents related to land ownership disputes in the maritime zone, other public domain lands, and DNER property in the coastal zone. Additionally, staff provide orientation briefings on commonwealth coastal zone laws and regulations to the Ranger Corps.

Previous evaluation teams of both PRCMP and JBNERR have raised concerns regarding the enforcement of PRCMP's core authorities. Throughout the site visit, the evaluation team heard from a variety of sources about the continuing need for improved enforcement. The evaluation team was told more than once that while the rangers do a very good job enforcing boating and navigation laws, they do not always exhibit the same

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strong enforcement characteristics regarding environmental laws. As DNER's "eyes" in the field, the rangers are by far the most likely individuals to regularly encounter a wide variety of violations; thus they must have the capacity and willingness to enforce equally all coastal environmental regulations. The rangers should receive regular training and refresher courses, in addition to orientation briefings, on the coastal environmental laws and regulations that they are responsible for enforcing. DNER might also consider training some of the rangers to specialize in certain areas of environmental regulations such as erosion and sedimentation.

PRCMP's efforts to improve permitting will be of limited effectiveness unless enforcement is improved concurrently. It is not enough to issue a permit with appropriate conditions. There must be monitoring to ensure that conditions are being implemented and enforcement if they are not. As most agencies have limited resources available for enforcement, DNER and its partners must work together closely to improve coordination and to leverage resources for enforcement.

Such coordination is not without precedent in Puerto Rico; it recently occurred to address serious enforcement issues that resulted in significant resource degradation at JBNERR. In response, the Secretary of DNER developed an interagency agreement regarding monitoring and enforcement at the reserve. The agreement succeeded in: (1) raising awareness of the issues among all relevant partners; and (2) identifying specific actions required to resolve the situation. All parties identified in the agreement signed it and committed to addressing existing enforcement problems at the reserve as well as preventing new problems from occurring. The agreement has clearly raised the awareness and interest of the partners and has facilitated open communication among agencies that previously had not collaborated to address enforcement issues at the reserve. No new enforcement issues have occurred at the reserve since the agreement was signed.

Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in Coastal Zone Management Act §312(c). Failure to comply with the Necessary Action identified below may result in cooperative agreement special award conditions withholding payment of a certain amount of the total award until the actions identified below have been completed or met.

**7. Necessary Action: PRCMP's networked agencies must develop a Memorandum of Understanding regarding a coordinated enforcement program that clearly identifies: (1) all coastal management issues needing enforcement; (2) each agency's roles and responsibilities; (3) type and frequency of training required for enforcement personnel; (4) procedures for enforcement personnel in the field; (5) legal procedures for pursuing enforcement actions following identification of a violation; and (6) penalties for violations. PRCMP should strongly consider modeling the MOU after the JBNERR interagency enforcement agreement. PRCMP must submit: (1) a draft MOU to OCRM within twelve months of receipt of final evaluation findings; and (2) the final, signed MOU to OCRM within eighteen months of receipt of final evaluation findings. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.**

c. Federal Consistency

The effective application of federal consistency is another critical component of a coastal management program. The PRCMP Federal Consistency Office is located at PB. The office reviews proposals for actions in the coastal zone to ensure: (1) that the proposed actions comply with PRCMP and other federal laws and regulations; and (2) that the actions have minimal impacts on coastal ecosystems. In addition to conducting an analysis and determination for each federal consistency certificate request, the Federal Consistency Office also:

- Schedules meetings with applicants and representatives of commonwealth and federal agencies as necessary prior to submitting a consistency determination;
- Prepares evidence to respond to appeals made to the U.S. Secretary of Commerce in cases where the office denies a certification of consistency;
- Reviews and comments on public notices issued by federal regulatory agencies, particularly USACE and USEPA regarding permits in the coastal zone;
- Schedules regular meetings with USACE to discuss individual permit requests in the coastal zone;
- Reviews and evaluates legal, administrative, and environmental documents pertinent to the office's efforts and objectives; and
- Attends other activities pertinent to the office's functions.

During the review period, PRCMP worked on developing a new federal consistency guidebook and fact sheets to address the lack of clear, reliable information about the federal consistency process. Staff explained that the fact sheets will be based on categories of projects and will provide generic guidelines for applicants. PRCMP will post the fact sheets on DNER's and PB's websites. OCRM commends PRCMP for its efforts to develop a new federal consistency guidebook and fact sheets. OCRM also encourages the program to finalize and distribute the guidebook and fact sheets as soon as possible.<sup>12</sup>

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<sup>12</sup> As part of distribution, the guidebook and fact sheets should be available on PRCMP's website.

**Accomplishment: PRCMP worked on developing a new federal consistency guidebook and fact sheets to address the lack of clear, reliable information about the federal consistency process.**

Previous evaluation teams reviewed PRCMP's implementation of federal consistency and concluded that improvements were necessary. For example, the 2002 evaluation findings contained the following Necessary Action:

Federal Consistency: PRCMP (specifically DNER and PB) will work together with all federal agencies that issue licenses and permits for activities in the coastal zone in order to clearly delineate the federal consistency decision-making process and to develop an approach that reduces the number of problems that occur as a result of differing agency timeframes. PRCMP will also work with all federal agencies that issue licenses and permits for activities in the coastal zone to develop a Memorandum of Understanding to improve the federal consistency process.

Given that previous evaluations have raised concerns regarding PRCMP's application of federal consistency, considerable time was devoted to this topic during the site visit. It became clear to the evaluation team that many people do not have a good understanding of the federal consistency process. Consequently, poorly-informed applicants often submit incomplete environmental information with their applications, delaying and complicating the process. This is indicative of the need to provide clear, consistent information regarding all aspects of the coastal permitting process, including federal consistency, to project applicants and the general public. The new federal consistency guidebook and fact sheets as well as training provided in response to the Necessary Action contained in the "Permitting" section of this document should facilitate greater understanding among all relevant parties of the federal consistency process.

A lack of coordination among the agencies involved in the federal consistency process persists. One mechanism for improving interagency coordination regarding federal consistency is appropriate and active participation in USACE's monthly preapplication meetings. These voluntary meetings offer applicants an opportunity to discuss project proposals with regulatory agencies early in the development process. Thus, an applicant is able to make necessary modifications to the project before investing substantial amounts of time and money. As applicants are considerably less inclined to modify a project once it is underway, the USACE preapplication meetings provide an excellent opportunity for regulatory agencies to explain their concerns with a proposed project and to work with the applicant at a time when the applicant is more likely to be responsive. For this reason, it is important that appropriate PRCMP and DNER staff regularly attend USACE's monthly preapplication meetings.

**8. Program Suggestion: OCRM strongly encourages PRCMP to send appropriate staff to USACE’s monthly preapplication meetings. Depending upon the type of projects to be discussed at a given meeting, relevant specialists from within DNER, particularly from the Permitting Secretariat, should also attend and actively participate in the review process.**

Another issue that tends to hamper the effective application of federal consistency in Puerto Rico is that PB grants site consultation endorsements very early in the development process. In fact, PB may grant such an endorsement years before undertaking a federal consistency determination. At times, granting a site consultation endorsement so early in the development process creates a reluctance to deny a federal consistency certification later, when applicants are less willing to alter their projects. An unwillingness to deny federal consistency certification because a proponent has already received a site consultation endorsement or other necessary permit defeats the purpose of the certification process, weakens the program, and contributes to the public perception that developers are able to manipulate the permitting process by “shopping around” for the “right” initial endorsement or permit. PRCMP and its partners must work together to resolve this problem. It must be absolutely clear to all relevant agencies as well as to applicants and to the general public that the successful receipt of one endorsement or permit in no way guarantees receipt of federal consistency certification.

Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in Coastal Zone Management Act §312(c). Failure to comply with the Necessary Action identified below may result in cooperative agreement special award conditions withholding payment of a certain amount of the total award until the actions identified below have been completed or met.

**9. Necessary Action: Within one month of receipt of final evaluation findings, PRCMP will begin working with all relevant networked agencies, OCRM and federal agencies that issue licenses and permits for activities in the coastal zone to develop a Memorandum of Understanding (MOU) to strengthen the federal consistency process. The MOU should address coordination among the relevant agencies and clarify agencies’ roles, responsibilities and timeframes for decision-making. The MOU also should seek to improve the process for Federal Consistency reviews and to ensure that all appropriate agencies are committed to and engaged in the process. PRCMP must submit: (1) a draft MOU to OCRM within twelve months of receipt of final evaluation findings; and (2) the final, signed MOU to OCRM within eighteen months of receipt of final evaluation findings. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.**

d. Maritime Zone Delineation

The maritime zone is the land component of Puerto Rico’s public trust. Spanish Port Law (1886) mandates the determination of the maritime zone’s boundary. Since its

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establishment, DNER has been the commonwealth agency responsible for maritime zone delineation. Regulations pertaining to compatibility of certain activities within the maritime zone as well as the official delineation process were adopted in 1992. At the time of the site visit, the commonwealth had yet to complete the delineation of its maritime zone.

Before a development project can begin in the maritime zone, DNER's Survey Division must establish the border of the zone in the relevant area, and the Endorsements Bureau must issue a concession allowing for private use of the zone. Unfortunately, the Survey Division continues to be impeded by staff shortages and the lack of a commonwealth-wide map of the maritime zone. The division must conduct site-by-site reviews when projects are proposed, but it is inadequately staffed to perform this important function. In turn, the Survey Division's lack of staff and technical resources encumbers the ability of the Endorsements Bureau to issue maritime zone concessions on time. These issues are not new and have been cited in previous evaluation findings. Given the concomitant difficulties of DNER's surveyor shortage, OCRM has repeatedly recommended that DNER find a way to provide more surveyors for maritime zone delineation and associated duties. Unfortunately, DNER has been unable to do so.

During the site visit, PRCMP staff suggested that the program could provide a "preliminary" delineation of the entire maritime zone using aerial photographs and GIS. Such a delineation would be considered "preliminary" until certified by a licensed commonwealth surveyor. The evaluation team agreed that a complete, albeit "preliminary," delineation would be an improvement over the current situation.

Maritime zone delineation is a continuing task in PRCMP's annual grant applications; thus, the evaluation team was surprised to learn that PRCMP staff were unable to provide an estimate of how much of the maritime zone had been delineated. At the time of the site visit, the program had begun to digitize existing maritime zone survey maps. Additionally, current maritime zone delineations are immediately digitized upon completion. These efforts should provide PRCMP with a greater understanding of the current status of maritime zone delineation. Given that the program receives funding for this task every year, it is imperative that PRCMP be able to report how much of the maritime zone has been delineated.

The maritime zone is a critical component of Puerto Rico's coastal management laws and policies. PRCMP has been operating for more than 25 years, and it is difficult to accept that it remains without a comprehensive map of the maritime zone, and furthermore, it does not know how much of the zone has been delineated. This is no longer acceptable for a program that has been operational as long as PRCMP.

Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in Coastal Zone Management Act §312(c). Failure to comply with the Necessary Action identified below may result in cooperative agreement special award conditions withholding payment of a certain amount of the total award until the actions identified below have been completed or met.

**10. Necessary Action: Within three months of receipt of final evaluation findings, PRCMP must submit to OCRM a detailed schedule for completing both a preliminary and an official delineation of the entire maritime zone. The schedule must identify interim steps and benchmarks, and an appropriate timeline. Within eighteen months of receipt of final evaluation findings, PRCMP must submit to OCRM: (1) a preliminary delineation of the commonwealth's entire maritime zone at a suitable scale; and (2) a strategy and timeline for completion of the official delineation of the commonwealth's entire maritime zone. The complete timeline should extend no longer than three years from receipt of final evaluation findings. Upon completion, the official delineation also must be made available to the commonwealth government, nongovernmental organizations and the public. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.**

## 2. Public Participation

### a. Education

Education is a very important component of the efforts to protect Puerto Rico's coast, which accommodates multiple uses and activities that are critical to the island's economic vitality. PRCMP's environmental education efforts are designed to improve the general public's awareness and understanding of coastal issues. Viewing environmental education as an inclusive and dynamic process, PRCMP has involved DNER's education personnel, technical staff, members of the Ranger Corps and teachers in developing interactive education activities and distributing education materials.

PRCMP provides key programmatic and technical assistance to DNER's four regional environmental educators located in San Juan, Mayaguez and Humacao. The regional environmental educators work with department biologists and rangers to identify regional environmental problems and to raise community awareness of the importance of coastal resources. Due to staffing limitations, the environmental educators emphasize interagency collaboration with partners such as the Puerto Rico Department of Education. For example, the two departments worked extensively together to include environmental education in ninth-grade students' regular science curriculum. PRCMP also participated in a public hearing to support a legislative measure that would include environmental education as a regular course for all students in the first through twelfth grades. Additionally, the regional environmental educators have worked with community-based organizations such as the Young Rangers<sup>13</sup> and Scuba Dogs.

Examples of environmental education activities that PRCMP helped support during the review period include:

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<sup>13</sup> The Young Rangers is an environmental organization composed of students from public schools.



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- **Science Fair and Environmental Coastal Workshop:** The regional environmental educators, in coordination with the Puerto Rico Department of Education and private schools, attended school science fairs throughout the commonwealth. The educators gave presentations about the coastal zone, and they also evaluated relevant coastal projects. Students with the twenty best projects were invited to participate in the week-long Environmental Coastal Workshop.
- **Coastal Season:** The Coastal Season is held each fall and includes a variety of education activities such as beach clean-ups, restoration work and fishing tournaments. The regional environmental educators coordinate and develop activities in their regions, and other educators support and participate in the activities. For example, the regional environmental educators work closely with community and private organizations to participate actively in the International Clean-Up Day each September. Organizations such as Scuba Dogs and Industry and Commerce for Recycling assist by organizing clean-up activities focused on the coastal zone. Prior to and during the clean-up activity, the regional environmental educators offer informational sessions about coastal zone management.
- **Marine Turtle Workshop:** PRCMP held a Marine Turtle Workshop in the Mayaguez Region for science teachers, university students, environmental organizations and regional environmental educators. The objective of the workshop was to develop educational activities related to marine turtle conservation.
- **Teachers' Workshops:** The program also held workshops for science teachers in the Puerto Rico Public Education System. Topics included public policy, coastal zone management and coastal resource conservation. The workshops were held in Mayaguez, Humacao and San Juan.
- **Photography Workshops:** The regional environmental educators organized photography workshops around specific geographic locations such as Mona Island. Staff used the photos as teaching tools and incorporated them into posters and calendars.

OCRM commends PRCMP for providing strong programmatic and technical support to DNER's regional environmental educators. OCRM encourages the program to continue such efforts and to pursue opportunities to expand coastal education efforts to wider audiences, such as businesses, realtors, developers and local governments, as practicable.

**Accomplishment: PRCMP provided important programmatic and technical support to DNER's regional environmental educators. The program also promoted key education activities such as the Coastal Season and a wide variety of environmental workshops.**

**b. Outreach and Public Involvement**

PRCMP engages in limited outreach, and most of its outreach efforts are closely tied to environmental education activities. The program's outreach efforts primarily include developing and distributing materials such as brochures, posters and calendars. For example, PRCMP produces and updates "Orienta" and "Educa" brochures about coastal resources to complement education activities at the natural reserves. During the review period, the program produced several new brochures: Salinas de Cabo Rojo, Bosque Seco de Guanica, Reserva Natural Cano Boquilla, and Islas, Cayos y Islotes. PRCMP also contributed to CDs about Mona Island and sea turtles and a documentary about Puerto Rico's coastal zone. In order to broaden its target audience, PRCMP should consider producing English-language versions of appropriate outreach materials for distribution at commonwealth hotels and other tourist destinations along the coast.

During the site visit, the evaluation team learned that there is a tremendous need for PRCMP: (1) to reinvigorate and expand its outreach to local communities; and (2) to increase public involvement in PRCMP. These needs were clearly expressed during the site visit's public meeting, which was very well attended. The majority of the participants spoke intensely about their concern for Puerto Rico's coastal resources and their frustration with commonwealth environmental agencies. One after another, the speakers reiterated that what is happening to Puerto Rico's natural resources is shameful. It became clear to the evaluation team that several negative perceptions about coastal management in Puerto Rico are commonly held. Such perceptions include:

- Developers can easily manipulate the permitting system to get whatever they want;
- The commonwealth government, which is supposed to protect the island's natural resources, routinely grants permits that result in the destruction of those resources; and
- The "common people" are left without recourse and subsequently must deal with the consequences of unwise development, such as increased flooding in their communities.

Several attendees called for DNER to be abolished. Others registered the opinion that while most agency staff are people of integrity, political decisions override their work and result in resource destruction.

Public meeting participants also emphasized how difficult it is to contact PRCMP staff as their phone numbers are not published and they do not have department e-mail accounts. This issue also was raised in the 2002 evaluation findings, which noted frustration among the public when seeking answers about various activities in the coastal zone. Individuals stated that they were uncertain about whom to contact, and that answers to their questions were often delayed and unclear. The 2002 evaluation findings recommended that PRCMP establish an ombudsman to serve as the point of contact for all questions about coastal zone management issues and activities. However, PRCMP did not employ an

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ombudsman or similar solution to address this issue, as evidenced by comments at the public meeting.

Comments such as those received by the evaluation team during the public meeting starkly indicate the need for PRCMP to engage in meaningful community outreach. It is very important for PRCMP to increase its community outreach in order to improve understanding of PRCMP and its jurisdiction. Networked programs can be difficult to explain, but their inherent complexity renders such explanation even more important. Furthermore, as described in various sections of this document, PRCMP carries out important work and has achieved a number of significant accomplishments during the review period. The program must raise its visibility and communicate its achievements as well as its challenges to the public throughout Puerto Rico's coastal communities.

In addition to strengthening community outreach, PRCMP should explore mechanisms for increasing public involvement in the program. Clearly, many people in Puerto Rico have a great deal of energy and interest in PRCMP from which the program might benefit. For example, PRCMP could begin to involve community members in local projects addressing coastal management issues of particular interest to them. Greater community involvement in PRCMP will: (1) result in increased public understanding of the program; (2) provide community members with a constructive means through which to become involved in coastal management; (3) potentially afford PRCMP the capacity to accomplish more or different projects; and (4) improve PRCMP's link to coastal communities.

**11. Program Suggestion: OCRM urges PRCMP to work with all relevant partners to develop a strategy for strengthening community outreach and increasing public involvement in the program.**

**V. CONCLUSION**

For the reasons stated herein, I find that Puerto Rico is generally adhering to the programmatic requirements in the operation of its approved PRCMP. However, substantial programmatic issues regarding permitting and enforcement have not been addressed sufficiently.

PRCMP has made notable progress in the following areas: grant applications, geographic information system, metadata, public access, coral reefs, natural reserves, submerged lands zoning, Coastal Nonpoint Program and education.

These evaluation findings also contain 11 recommendations. These recommendations are in the form of four Necessary Actions and seven Program Suggestions. The commonwealth must address the Necessary Actions by the dates indicated. Failure to address Necessary Actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in Coastal Zone Management Act §312(c). Failure to comply with Necessary Actions may result in cooperative agreement special award conditions withholding payment of a certain amount of the total award until the actions have been completed or met. The Program Suggestions should be addressed before the next regularly scheduled program evaluation, but they are not mandatory at this time. Summary tables of program accomplishments and recommendations are provided in Appendix A.

This is a programmatic evaluation of the Puerto Rico Coastal Management Program that may have implications regarding the commonwealth's financial assistance awards. However, it does not make any judgment about or replace any financial audits.

/S/ David M. Kennedy  
David M. Kennedy  
Director, Office of Ocean and Coastal  
Resource Management

August 11, 2006  
Date

**VI. APPENDICES**

**Appendix A. Summary of Accomplishments and Recommendations**

The evaluation team documented a number of PRCMP’s accomplishments during the review period. These include:

<b>Issue Area</b>	<b>Accomplishment</b>
Grants and Performance Reports	PRCMP improved its grant applications with more illustrative project descriptions and clearer deliverables. The program also successfully submitted its FY 2005 award application through the Coastal and Marine Management Program.
Geographic Information System	PRCMP has furthered its role as a leader in the innovative application of GIS technology among commonwealth agencies and programs. PRCMP also hired a full-time GIS Specialist and continued to explore opportunities to expand the availability of GIS applications throughout DNER.
Metadata	DNER developed the “Coordination, Review and Acquisition of Baseline Data” database to ensure appropriate consideration of coastal resource issues as part of DNER’s permit review process.
Public Access	PRCMP consistently worked to improve public access to Puerto Rico’s coastal waters by: (1) developing excellent public access inventories and brochures; (2) designing and installing standardized public access signs; and (3) initiating projects such as dune walkovers on popular beaches.
Coral Reefs	PRCMP participated in both the U.S. and Puerto Rico Coral Reef Initiatives. The program provided support for the Puerto Rico Coral Reef Monitoring Project. PRCMP also supported education and outreach about coral reefs by assisting with the development and maintenance of a coral reef information database and website.
Natural Reserves	PRCMP supported the designations of six coastal areas as natural reserves during the review period. The program also contributed to improving and standardizing the development of natural reserve management plans.
Submerged Lands Zoning	PRCMP made strong progress in the development of coastal zoning maps during the review period.
Water Quality	PRCMP has been a key participant in the CNP Interagency Committee and has focused considerable time and effort on addressing coastal nonpoint source pollution through implementation of the CNP.
Federal Consistency	PRCMP worked on developing a new federal consistency guidebook and fact sheets to address the lack of clear, reliable information about the federal consistency process.
Education	PRCMP provided important programmatic and technical support to DNER’s regional environmental educators. The program also promoted key education activities such as the Coastal Season and a wide variety of environmental workshops.

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In addition to the accomplishments listed above, the evaluation team identified several areas where PRCMP could be strengthened. Recommendations are in the forms of Necessary Actions and Program Suggestions. Areas for improvement include:

<b>Issue Area</b>	<b>Recommendation</b>
Program Changes and Program Document	#1. PS: OCRM urges PRCMP: (1) to work closely with the appropriate commonwealth agencies to complete the program document revision as soon as possible; and (2) to submit the revised program document in English to OCRM for review within one year of receipt of final evaluation findings.
Grants and Performance Reports	#2. PS: OCRM strongly recommends that PRCMP balance continuing tasks in its annual grant application with several short-term tasks that will provide the program greater flexibility in responding to emerging issues and opportunities. OCRM also strongly recommends that PRCMP dedicate federal coastal zone management funding to new PRCMP projects or initiatives and pursue consistent commonwealth funding for program administration, salaries and programmatic support.
Grants and Performance Reports	#3. PS: OCRM encourages PRCMP to improve the quality of its performance reports by eliminating extensive background information and focusing on clear, concise descriptions of each task’s relevant accomplishments during the reporting period. Performance reports should clearly indicate what specifically has been accomplished under each task during the relevant reporting period only. The program should consider holding a performance report writing workshop or other such training for its staff.
Public Access	#4. PS: OCRM strongly encourages PRCMP to work with all relevant commonwealth agencies to improve enforcement of public access requirements for development projects, including the removal of perceived barriers to access.
Jobos Bay NERR	#5. PS: OCRM strongly encourages PRCMP and JBNERR to continue to strengthen their ties and to explore new areas for collaboration. For example, OCRM strongly encourages PRCMP to pursue key training and outreach opportunities presented by JBNERR’s CDMWs and CTP.
Permitting	#6. NA: PRCMP, working with all relevant networked agencies, will develop a strategy describing: (1) how it will comply with the outstanding requirements of the permitting Necessary Action contained in the 2002 evaluation findings, and (2) how it will provide training for appropriate agency staff on permitting. PRCMP must: (1) submit the strategy to OCRM within three months of receipt of final evaluation findings; and (2) complete implementation of the strategy within one year of OCRM’s approval of it. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.

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Enforcement	#7. NA: PRCMP’s networked agencies must develop a Memorandum of Understanding regarding a coordinated enforcement program that clearly identifies: (1) all coastal management issues needing enforcement; (2) each agency’s roles and responsibilities; (3) type and frequency of training required for enforcement personnel; (4) procedures for enforcement personnel in the field; (5) legal procedures for pursuing enforcement actions following identification of a violation; and (6) penalties for violations. PRCMP should strongly consider modeling the MOU after the JBNERR interagency enforcement agreement. PRCMP must submit: (1) a draft MOU to OCRM within twelve months of receipt of final evaluation findings; and (2) the final, signed MOU to OCRM within eighteen months of receipt of final evaluation findings. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.
Federal Consistency	#8. PS: OCRM strongly encourages PRCMP to send appropriate staff to USACE’s monthly preapplication meetings. Depending upon the type of projects to be discussed at a given meeting, relevant specialists from within DNER, particularly from the Permitting Secretariat, should also attend and actively participate in the review process.
Federal Consistency	#9. NA: Within one month of receipt of final evaluation findings, PRCMP will begin working with all relevant networked agencies, OCRM and federal agencies that issue licenses and permits for activities in the coastal zone to develop a Memorandum of Understanding (MOU) to strengthen the federal consistency process. The MOU should address coordination among the relevant agencies and clarify agencies’ roles, responsibilities and timeframes for decision-making. The MOU also should seek to improve the process for Federal Consistency reviews and to ensure that all appropriate agencies are committed to and engaged in the process. PRCMP must submit: (1) a draft MOU to OCRM within twelve months of receipt of final evaluation findings; and (2) the final, signed MOU to OCRM within eighteen months of receipt of final evaluation findings. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.
Maritime Zone Delineation	#10. NA: Within three months of receipt of final evaluation findings, PRCMP must submit to OCRM a detailed schedule for completing both a preliminary and an official delineation of the entire maritime zone. The schedule must identify interim steps, benchmarks and an appropriate timeline. Within eighteen months of receipt of final evaluation findings, PRCMP must submit to OCRM: (1) a preliminary delineation of the commonwealth’s entire maritime zone at a suitable scale; and (2) a strategy and timeline for completion of the official delineation of the commonwealth’s entire maritime zone. The complete timeline should extend no longer than three years from receipt of final evaluation findings. Upon completion, the official delineation also must be made available to the commonwealth government, nongovernmental organizations and the public. PRCMP will provide quarterly updates to OCRM describing progress in addressing this Necessary Action.

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Outreach and Public Involvement	#11. PS: OCRM urges PRCMP to work with all relevant partners to develop a strategy for strengthening community outreach and increasing public involvement in the program.
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## Appendix B. PRCMP's Response to 2002 Evaluation Findings

**#1. Necessary Action: DNER will take action to ensure that all applications for Maritime Zone concessions are reviewed in accordance with the Regulations for Use, Surveillance, Conservation, and Management of the Territorial Waters, Submerged Lands Thereunder and the Maritime Zone, in a timely manner, and with ample opportunity for public involvement. Comments made to PB on permit applications, in addition to the maritime zone issues, must be submitted in a timely manner. Criteria for issuing variances allowing development in the maritime zone must be well established, publicized and clarified if necessary. Hearings or other processes that make decisions on variances must be well publicized. Information should be made available to the public in a central, easily accessible location, including a description of the permit process and instructions on the appropriate input for the public.**

**To ensure these activities are completed, DNER, working with other agencies, will: a) establish a clear process describing how DNER meets its responsibilities under the maritime zone regulations, including criteria for variances, opportunities for public involvement, and timelines for providing information to the PB and other agencies; and b) enter into new or revised agreements with relevant commonwealth agencies clearly identifying each agency's roles and responsibilities in the PRCMP. The agreements should acknowledge and make full use of DNER's technical expertise, programmatic responsibilities, and monitoring and enforcement role (through the Ranger Corps). Comparable resources and mandates of the other agencies should also be highlighted in the agreements. This can be done by revising existing documents: the joint permit application, the coastal management program document, and by establishing new legislation or regulations or through other means. Implementation of this task should begin in a timely manner. DNER will submit to OCRM within six months of the issuance of the final findings a schedule for completing this process.**

DNER consolidated all permitting activities within a Permitting Secretariat. All personnel with responsibility for any aspect of permit review and evaluation in DNER were assigned to the new unit. The Permitting Secretariat processes all permits, including requests for licenses and concessions in the maritime zone. The unit also is responsible for reviewing federal consistency findings. As part of the Permitting Secretariat, DNER has established a permit system that allows for the rapid retrieval, analysis and tracking of permit requests and decisions. As a result of the reorganization, there has been a marked improvement in permit processing and in complying with deadlines for responding to project reviews and permit applications.

DNER and RPA signed an interagency agreement about coordinating project evaluations and monitoring adherence to permit conditions. In addition, DNER participates in RPA's "one stop shop" for evaluating development projects.

PRCMP integrated Regulation 4860 and the Island-wide Land Use Public Policies and Objectives into the program through routine program changes. PB has used this new enforceable policy to strengthen coastal zone protection in flood prone areas as well as maritime and submerged public trust lands.

**#2. Necessary Action: PRCMP (specifically DNER and PB) will work together with all federal agencies that issue licenses and permits for activities in the coastal zone to clearly delineate the federal consistency decision-making process and to develop an approach that reduces the problems that occur as a result of differing agency timeframes. PRCMP will also work with all federal agencies that issue licenses and permits for activities in the coastal zone to develop a Memorandum of Understanding to improve the federal consistency process.**

In the past year, DNER and PB have significantly improved the federal consistency review and evaluation process. Two employees from USACE have been assigned to work at DNER on a personnel exchange arrangement to transfer their expertise relative to the federal permitting process. One of these employees was placed in charge of the DNER Permitting Secretariat; the other has assumed the position of DNER's Area Director of Hydrology and Water Resources Planning. In a reciprocal arrangement, a senior professional from DNER was assigned to work with USACE's San Juan office for two years.

As part of the continuous effort to optimize and streamline decision-making at Commonwealth regulatory agencies, PRCMP through PB and DNER integrated all land-use and federal consistency records in an interactive GIS database. All past and current federal consistency requests and records of decisions are available at the PRCMP web page (<http://www.coralpr.net>, Puerto Rico Interactivo link in the lower right corner).<sup>14</sup> This tool enables the requesting party to track the decision-making record and the status of the case. It also provides an excellent tool for cumulative and environmental impact analysis.

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<sup>14</sup> The Evaluation Team Leader tried accessing the federal consistency database through the Puerto Rico Interactivo link on the PRCMP web page numerous times over several months. Each time she received the error message, "This page cannot be found."

**#3. Program Suggestion: The secretary of DNER and president of PB should consult with each other and with OCRM about transferring federal consistency authority to DNER. This could be accomplished under the auspices of the draft coastal management act under consideration in Puerto Rico and/or through the revision of the PRCMP document now underway. Given DNER's responsibility for issuing maritime zone concessions, DNER's growing technical capabilities (GIS, cumulative impact analysis, etc.) and expertise in coastal resources and ecosystems, and DNER's role as lead agency of the PRCMP, OCRM believes Puerto Rico's use of federal consistency as a coastal management tool would be enhanced by DNER assuming that responsibility.**

Communication between DNER and PB has significantly improved with respect to project review and federal consistency evaluation. Therefore, no further consideration currently is being given to the transfer of the federal consistency process to DNER.

**#4. Program Suggestion: PRCMP should develop a plan for integrating technology into the coastal management program including expanded Internet access, GIS (for permit tracking and other purposes), and widespread use of email and other electronic communication. The planning should first focus on establishing an integrated system with priorities associated with the various functions. For example: permitting, land use planning, policy development, and education and outreach. Next, it should evaluate the types of data and applications that are needed for the priority areas. The plan should look throughout PRCMP partners to identify existing technical capacity (hardware, networks, data layers) and gaps, as well as training and implementation needs of agencies and coastal decision-makers. The coastal program partners should then prioritize filling those gaps, identify and develop commitments from networked entities as well as additional funding sources needed to fill the gaps, and set out a schedule for funding priority needs. If the PRCMP does not expect to complete its move into the new DNER building within six months of the issuance of the final evaluation findings, the Department should acquire additional email accounts through local providers for PRCMP staff, as determined by the director.**

PRCMP's GIS capacity has greatly improved. Technical data is regularly integrated into planning and management activities using GIS capabilities. When wiring of the new building for broadband connectivity is completed, the program's capabilities for adapting the latest communications technologies will be greatly enhanced. In the interim, the program is using staff members' individual Internet connections to augment the Internet resources that are now available in the new building.

**#5. Program Suggestion: Building upon the successful effort to achieve program approval, DNER is encouraged to continue its support for the Nonpoint Source Pollution Committee and, working with EQB, to encourage a greater level of support on the part of other commonwealth agencies. DNER should report semi-annually to OCRM, as part of the regular PRCMP reporting process, on the progress of implementing specific tasks included in the 15-year program implementation strategy. DNER should coordinate fully with EQB on the joint implementation of the Coastal Nonpoint Pollution Control Program and provide support to the Nonpoint Source Management Program.**

Work on the Coastal Nonpoint Pollution Program is well established. The program is steadily moving forward as evidenced by the formation of the Coastal Nonpoint Committee. This Committee has approved and is implementing a number of projects including those addressing animal waste management. DNER has established coordination efforts with the University of Puerto Rico Water Resources Institute, the Agricultural Extension Service and the Center for Watershed Protection to enhance the commonwealth's coastal and urban watershed management capabilities. EQB and DNER co-lead this effort.

**#6. Program Suggestion: Working with other commonwealth agencies, DNER should develop a mechanism to integrate use of the cumulative impact assessment into the process of land use planning, zoning, facility siting, permitting, and other coastal policy decision-making. DNER should work with PB and EQB to formally adopt the cumulative impact assessment method into routine permit processes.**

Cumulative and Secondary Impact Analysis has been a priority program area under several section 309 program iterations. DNER, PB and EQB signed a memorandum of understanding to cooperate in advancing Cumulative and Secondary Impact Analysis. DNER made considerable progress in developing a methodology that combines quantitative and qualitative techniques. However, the work has reached the point where it is appropriate for EQB to take the lead on refining and applying Cumulative and Secondary Impact Analysis methodology as part of the revised Puerto Rico Environmental Policy Act. The cooperating agencies have agreed on this. DNER will continue to assist in Cumulative and Secondary Impact Analysis activity, but the Department will no longer fund it as a PRCMP task.

**#7. Program Suggestion: DNER and other members of the Special Planning Area-Interagency Committee (SPA-IC) should develop strategies to improve implementation of the Special Planning Area (SPA) plans. The strategies could be tailored to issues relevant to individual SPAs, or a broader strategy could be developed. As the technical secretariat of the SPA-IC, DNER should use this position to improve implementation of the SPA plans.**

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During the review period, SPA interagency coordination, particularly with PB, has improved. The SPA-IC reviewed and approved SPA management plans. PRCMP has completed several updates for draft management plans that subsequently will be adopted by PB as part of the Island-wide Land Use Plan.

In 2002, the Legislature created the Land Use Plan Office within PB. All SPA management plans, as well as all natural reserves and marine protected areas have been integrated into the plan as core conservation and buffer multiple-use areas.

**#8. Program Suggestion: Given the changes in land use authority under the Autonomous Municipalities Act allowing for greater participation in the PRCMP by qualified municipalities, DNER should integrate municipal planners and officials into its outreach and education activities. Specific materials (brochures) or programs (workshops) should be developed for municipal officials explaining the relationship between the Autonomous Municipalities Act and PRCMP.**

Under the Section 309 Program, technical assistance and outreach focusing on public access is provided to local government. This effort has achieved notable success and is projected to continue into the future.

**#9. Program Suggestion: PRCMP should seek to balance the designation of new natural reserves with the development of management plans for existing natural reserves. Existing management plans should be reviewed and updated as appropriate. Management plans should be developed for all designated natural reserves that currently do not have plans. DNER, PB and other relevant agencies should work together on this issue in order to ensure an effective and efficient approach to reviewing existing management plans and preparing new management plans for natural reserves.**

Developing management plans for natural reserves is an active, on-going function of DNER. Seminars and in-service training is provided regularly to reserve managers. Private consultants are conducting several planning efforts under Coral Reef Initiative funded projects.

**#10. Program Suggestion: PRCMP should review any changes to PRCMP authorities affecting the program's enforceable policies, develop a schedule for submitting the program change requests to OCRM, and submit the schedule to OCRM as soon as possible.**

During the past three years, PRCMP has prepared and submitted RPCs to OCRM on a regular basis. Currently, approximately six RPCs are in various stages of the review process at OCRM.

**#11. Program Suggestion: Working with OCRM, PRCMP should review the Puerto Rico Coastal Zone Management Law and resubmit it for introduction in the commonwealth legislature. A working group should be convened to develop Natural Protected Area legislation that will provide a clear mandate for protected areas. The resulting Natural Protected Areas legislation should be submitted for introduction in the commonwealth legislature.**

This is underway. Coastal Zone legislation is a priority task. An earlier draft that was submitted to the Legislature is being revised for reintroduction.

**#12. Program Suggestion: PRCMP should institute a method for improving the timeliness and clarity of responses to citizen inquiries regarding coastal zone management issues and activities. PRCMP should consider establishing a “Coastal Zone Management Ombudsman” and an inquiry tracking system.**

This is being addressed through the Permitting Secretariat.

**#13. Program Suggestion: PRCMP should seek to increase staffing for Natural Reserves, legal affairs, and delineation of the maritime zone. Staff minimums for each task should be developed and vacant positions should be recruited for and filled.**

DNER has been working toward meeting staff shortages in key areas such as natural reserve management, maritime zone delineation and legal support services. These positions require well-qualified personnel. Unfortunately, local budget restrictions and limited federal funding constrain the Department’s ability to fill vacant positions.

**Appendix C. People and Institutions Contacted**

**Commonwealth of Puerto Rico Representatives**

<b>Name</b>	<b>Title</b>	<b>Affiliation</b>
Nora Alvarez		DNER PRCMP GIS
Norma Alvira		DNER
Ana Barea		DNER
Dixie Bayo		DNER
Jose Chabert		DNER
Francisco de Jesus		DNER Legal Division
Damaris Delgado	Director	DNER Bureau of Coasts, Reserves and Refuges
Ernesto Diaz	Administrator	DNER Natural Resources Administration
Clarimar Diaz Rivera		DNER Division of Terrestrial Resources Planning
Giovanna Fuentes	Director	DNER Bureau of Endorsements
Hector Horta		DNER PRCMP
Jinnie Nieves	Assistant Acting Director	DNER PRCMP
Irma Pagan	Assistant Administrator	DNER Natural Resources Administration
Jose Pochilla		DNER
Francisco Quintana	Acting Director	DNER PRCMP
Rosalyn Rosa	Director	DNER Ranger Corps
Javier Rua	Legal Advisor	DNER
Raul Santini	Coastal Nonpoint Program Lead	DNER PRCMP
Jose Salguero	Acting Manager	Jobos Bay NERR
Mayra Suarez	NOAA Coral Reef Management Fellow	DNER
Evelio Valeiras		DNER PRCMP
Aileen Velazco		DNER Coral Program
Javier Velez	Secretary	DNER
Silvia Abadia		Planning Board
Maryguel Fuentes		Planning Board
Rose Ortiz		Planning Board
Ruben Gonzalez		Environmental Quality Board
Carlos Lopez		Environmental Quality Board

**Academic Representatives**

<b>Name</b>	<b>Title</b>	<b>Affiliation</b>
Ruperto Chaparro	Director	Puerto Rico Sea Grant

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**Federal Agency Representatives**

<b>Name</b>	<b>Title</b>	<b>Affiliation</b>
Lisamarie Carrubba		National Marine Fisheries Service
Myrna Lopez		U.S. Army Corps of Engineers
Marisol Morales		U.S. Department of Agriculture
Ana Roman		U.S. Fish and Wildlife Service
Beverley Yoshioka		U.S. Fish and Wildlife Service
Pedro Diaz		U.S. Geological Survey



**Appendix D. People Attending the Public Meeting**

Carlos Altieri	Ismael Guadalupe
C. Ballester	Edwin Hernandez
Irma Ballester	Carmen Lamandeo
Angel Berio	Diana Lopez Feliciano
Jose Berrios	Marianne Meyn
Gloria Bulhon	Miguel Molina
N. Cafila	Luz Negron
Orland Castro	Sarah Peisch
Zulma Clavell	Mario Peres
Haydee Colm	T. Vazquez
Carlos Correro	Gerardo Ramirez
Paula Crandall	Lydia Ramos
Alma Cumba	Rafael Reyes
Miguel Davila	Duhamel Rivera
Alberto De Jesus	Lisandro Rivera
Ricardo De Soto	Roberto Rivera
Camilla Feibelman	Luis Jorge Rivera Herrera
Sonia Flores	Luis Rodriguez
Reinaldo Franqui	Sara Roherto
Aida Garcia	M. Santiago
Jose Gonzalez	Victor Torros
Miguel Gonzalez Rodriguez	Patricia Torrvella
Yogani Govender	

## Appendix E. OCRM's Response to Written Comments

OCRM received two individual sets of written comments regarding the Puerto Rico Coastal Management Program (PRCMP). In addition, the National Wildlife Federation and the Surfrider Foundation hosted an “environmental action alert” e-mail campaign regarding PRCMP and Puerto Rico’s Northeast Ecological Corridor. One thousand individuals participated in the action alert. The action alert is summarized and followed by OCRM’s response. A list of action alert participants is included in Appendix F.

**Paula Crandall**  
**Salvemos Nuestra Playa, Inc.**  
**Dorado, Puerto Rico**

**Comment:** Ms. Crandall writes to express the opposition of her organization to the “La Cala Turistica” marina project in Dorado, Puerto Rico. The proposed marina would have space for dozens of luxury yachts. The project would construct a semicircular breakwater in the bay located 300 yards from the public beach. Preliminary plans also indicate that the project would include a small boutique hotel, hundreds of residential units, and thousands of square feet of commercial space.

Salvemos Nuestra Playa states that the project will erode the beach, destroy corals and affect marine life such as endangered sea turtles, while cutting the area off from the public. Ms. Crandall writes that she hopes something can be done to prevent such abuses before it is too late. Ms. Crandall concludes that her organization knows that all the objections registered during the evaluation’s public meeting will be closely studied by the concerned agencies, and she hopes her organization will be part of the ongoing process.

**OCRM’s Response:** OCRM appreciates and shares the concerns of Ms. Crandall, Salvemos Nuestra Playa, and the other individuals who attended the evaluation site visit public meeting. In previous sections of this document, OCRM expressed its concerns regarding PRCMP’s permitting, enforcement and public involvement. OCRM has provided several Necessary Actions and Program Suggestions to address program deficiencies in these areas and will work closely with the program to achieve significant progress in permitting, enforcement and public involvement prior to the next evaluation.

**Chad Nelson**  
**Environmental Director**  
**Surfrider Foundation**  
**San Clemente, California**

**Leon Richter**  
**Puerto Rico Campaign Coordinator**  
**Surfrider Foundation**  
**San Clemente, California**

**Comment:** Mr. Nelson and Mr. Richter write that they applaud DNER for its continued efforts to create management plans for Puerto Rico’s nature reserves. They note that their experiences with DNER during the process to establish the Reserva Marina Tres Palmas have been positive and collaborative.

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Mr. Nelson and Mr. Richter state that while they recognize that existing special planning areas require support and effective management, they suggest that DNER consider adding a special planning area adjacent to the new Reserva Marina Tres Palmas to create a truly ecosystem-based protected area that considers the connectivity between the terrestrial watersheds and coral reefs.

Mr. Nelson and Mr. Richter note OCRM's concerns in the previous evaluation findings regarding permitting, particularly in the maritime zone, and state that permitting is still a major issue for Puerto Rico's coastal zone and a problem with the PRCMP. They write that while they understand that due to the networked structure of PRCMP, DNER has a limited role in permitting, a serious effort must be devoted to improve coordination, public input, and enforcement relating to permitting and construction in the maritime zone. Mr. Nelson and Mr. Richter provided a letter from DNER approving the permits for the Sandy Beach Apartments as an illustration of the problem. The project was constructed in the maritime zone, received variances without public input, hinders public access to the beach and threatens the health of the beach. The approval resulted in a commonwealth resolution to investigate the permitting process used by DNER, PB and RPA.

Mr. Nelson and Mr. Richter write that one of the major problems with DNER's communication with the public is that staff are too difficult to reach. They note that DNER has almost no electronic infrastructure to support e-mail or Internet capabilities.

Mr. Nelson and Mr. Richter conclude that they understand PRCMP faces many challenges to effectively balance conservation and development along the island's coastal zone. They note that they continue to have a very open and positive relationship with DNER staff and look forward to working with them and with OCRM in the future to improve the health of Puerto Rico's coasts and nearshore waters.

**OCRM's Response:** As described throughout this document, OCRM agrees with the Mr. Nelson's and Mr. Richter's comments. OCRM has provided several Necessary Actions and Program Suggestions to address program deficiencies and will work closely with the program and its partners to make significant progress in problem areas prior to the next evaluation.

### **Environmental Action Alert Participants**

**Comment:** Participants urge OCRM to require, through a Necessary Action, that PB and DNER designate the Northeastern Ecological Corridor (NEC) as a nature reserve. They write that during the review period, the commonwealth government has supported the construction of the San Miguel-Four Seasons Resort and the Dos Mares-J.W. Marriott resort in the NEC contrary to the goals and objectives of PRCMP. They note that local government support for the two mega-resorts, if finally approved, would undermine the purpose of having designated areas within the NEC subject to the Coastal Barrier Resources Act. The participants write that it is particularly troubling to learn that the commonwealth government is not only supporting these projects, but would also be

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providing financial aid, tax-exemptions and public lands for their construction, causing the destruction of the NEC's natural integrity, while receiving federal funds that should be used to achieve conservation of the NEC. They request OCRM's involvement in assuring that the commitments and policies for the protection of Puerto Rico's coastal resources be strictly followed.

**OCRM's Response:** While OCRM shares the concerns of the action alert participants, it cannot require PB and DNER to designate the NEC as a nature reserve. Necessary Actions may only address **programmatic requirements** of the federally-approved PRCMP. In other words, Necessary Actions require a program to address deficiencies in the implementation of its federally-approved program. Designation of the NEC or any other specific area as a natural reserve is not a requirement of the federally-approved PRCMP. The decision for any such designation lies with the commonwealth government.

However, in previous sections of this document, OCRM expressed its concerns regarding PRCMP's permitting, enforcement and public involvement. OCRM has provided several Necessary Actions and Program Suggestions to address program deficiencies in these areas and will work closely with the program to achieve significant progress in permitting, enforcement and public involvement prior to the next evaluation.