United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services
Field Office
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Boqueron, PR 00622

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In Reply Refer to:
FWS/R4/CESFO/72123-035

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Aguirre Offshore GasPort Project, Jobos Bay, Salinas, Puerto Rico, ER 12/0146, Docket No. PF 12-4-000

Dear Ms. Bose:

Thank you for your notice of intent to prepare an Environmental Impact Statement (EIS) dated February 28, 2012, requesting comments regarding the above referenced project. Our comments are provided as technical assistance under the Endangered Species Act (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.).

Excelerate Energy L.P,. in cooperation with the request from the Puerto Rico Electric Power Authority (PREPA), is proposing to develop, construct, and operate the Aguirre Offshore GasPort Project. The proposed project is located within approximately 4 miles offshore of the Central Aguirre Power Plant in Salinas and about 1 mile outside of the Jobos Bay National Estuarine Research Reserve (JBNERR).

Liquid natural gas (LNG) will be delivered to the project via LNG carriers (LNGCs), unloaded and stored within a permanently docked floating storage and regasification unit (FSRU), regasified on the FSRU, and delivered directly to the Aguirre Plant by a subsea pipeline. Information provided describes that providing LNG to the Aguirre Power Plant at maximum throughput rate will require approximately 12 to 24 LNGCs deliveries per year (approximately on every 14 to 30 days).

According to the information provided, the Aguirre Offshore GasPort Project would consist of the following:

- Construction of a fixed platform carrying topside facilities and two berths, one on each side of the fixed platform;
- Permanent docking of a liquefied natural gas (LNG) vessel at the fixed platform with a storage capacity of 150,900 cubic meters;
- Construction of about 4 miles of new 18 inch diameter subsea pipeline, which would be coated in protective concrete and laid atop the sea floor; and
- Construction of a new onshore metering and regulating (M&R) station within the boundaries of the power plant.

The proposed project lies within the range of the endangered Antillean manatee (*Trichechus manatus manatus*). Antillean manatee distribution in Puerto Rico is well known. Manatees are more frequently observed along the southern and eastern coasts and far less on the northwestern coast. Areas that consistently present a high number of observations include Jobos Bay in the south, the eastern coast of the former Roosevelt Roads Naval Station, the northwest coast of Vieques, and Guayanilla in the southwest. The Service has been conducting manatee aerial surveys for two decades and has consistently counted high numbers of manatees within the Jobos Bay area. Manatee aerial survey data also depicts, although to a lesser degree, manatees within the Boca del Infierno area and south of the cays in Jobos Bay.

The USFWS Caribbean Ecological Services Field Office has invested significant resources and efforts to continue with the recovery of the endangered Antillean manatee. One of these efforts is to identify areas where manatees aggregate and have suitable manatee habitat for future designation as manatee protection areas (MPAs) in Puerto Rico. Regulations (50 CFR 17 subpart J; 44 FR 60964, Oct. 22, 1979) authorize the designation of MPAs in areas where restrictions or prohibitions on certain waterborne activities are needed to prevent the take of manatees. Future designation of MPAs in Puerto Rico, if authorized, will restrict or prohibit certain waterborne activities within specific boundaries for the purpose of preventing the taking of manatees.

In order to assist us with the recovery effort mentioned above, we contracted the USGS North Carolina Cooperative Research Unit from the North Carolina State University. They gathered available data on manatee distribution, manatee habitat criteria and characteristics, and conducted a structured decision process to compile information from species experts. Based on that analysis, the USGS has identified areas which include the specific ecological attributes necessary for manatee long-term survival and identified areas where "take" of manatees can be reduced through the designation of MPAs under the current regulatory framework.

The key ecological attributes defined for manatees in Puerto Rico are sea grass, fresh water and sheltered areas. The USGS has identified a total of thirteen potential MPA regions for Puerto Rico. Using a less conservative 80th percentile (top 20%) threshold to identify MPA regions for

the island, the top ranked MPA region in Puerto Rico is from Santa Isabel to Jobos Bay (attached Figures 17 and 18 from Drew et al. 2011, under review).

Based on the above, the Service is concerned about the possible effects of the proposed project on the Antillean manatee and its habitats. We recommend the applicant and FERC develop a Biological Assessment to evaluate the effects of the project on the species and its habitat. The applicant and FERC should consider the following when evaluating the proposed projects effects on the Antillean manatee:

1. In-water construction methods and all project associated vessels size, speed and use, including possible effects to manatee feeding grounds in the area and individuals.
2. Benthic survey should quantify damage to sea grass beds and other feeding resources from all proposed project components.
3. Specific actions that will be taken to protect manatees in case of project related accidents or emergencies during and post construction.
4. Anticipated LNG and fuel oil barge traffic within the area and site-specific measures to minimize effects on manatees related to barge traffic.
5. Possible designation of safety or no-anchoring zones.

You should be aware that the proposed project also lies within the range of the endangered hawksbill (*Eretmochelys imbricata*) and green (*Chelonia mydas*) sea turtles and the federally listed corals *Acropora palmata* and *Acropora cervicornis*. The NOAA Fisheries' Protected Resources Division has jurisdiction over sea turtles in the water and coral resources and should be consulted.

The Service is also concerned about possible effects to aquatic resources in the area. The Jobos Bay has large expanses of healthy sea grass beds with soft sediments. The impacts to sea grass beds of the proposed installation method versus other methods should be discussed in the Federal EIS. The applicant estimates about 90 acres of construction impacts and 60 acres of permanent impacts to marine bottom. The applicant needs to consider compensatory mitigation for these impacts. The Federal EIS should evaluate the possibility of the pipeline acting as a barrier to migrating marine organisms. This has occurred with a freshwater pipeline from the island of Vieques to the island of Culebra, where the pipeline acts as a barrier to conch which pile up at the pipe and become too readily available to fishermen.

While the bottom tow technique is preferable over mechanical trenching, there are techniques such as mid water tow or off bottom tow which utilize flotation devices to keep the pipe off the bottom until the string is ready to be placed. This avoids the pipe creating its own trench as it is pulled along the bottom. Self-trenching or burial; however, may be a desirable outcome of this installation technique. Page 8 of the Alternatives Summary mentions the possible need for additional pipe protection. We recommend the use of flexible mats over sand bags or rock revetment. These are easier to place with more precision and could provide suitable substrate for colonization by marine organisms.

The on shore facilities will be located within the PREPA's Aguirre facility; however, the Federal EIS should discuss the possible effects, if any, of land base project components such as storage areas, parking, pipe yards, and trailers, among others.

The proposed project is located within two designated Coastal Barrier Units, PR-46 and PR-45P (map attached), the boundary of the two units is the Boca del Infierno pass through which the proposed pipeline will pass. Be aware that the Coastal Barrier Act prohibits the use of Federal funds within designated units.

The Cayos Caribe islands form part of Jobos Bay National Estuarine Research Reserve (JBNERR) which is reserve designated by NOAA. The boundary of the reserve extends offshore into Boca del Infierno. It is important that the Federal EIS discuss the possible effects of the project on the reserve and maps show the pipeline route versus the reserve boundary.

The Federal EIS should also consider possible effects, if any, on migratory bird species during and after construction and operation and management of the GasPort facility. In addition, the Federal EIS should also consider effects, if any, of all lighting placed on the permanent platform offshore terminal on marine species including sea turtles.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact Jan P. Zegarra at 787-851-7297 extension 220. You may also visit our website http://www.fws.gov/caribbean/ES for additional information on threatened and endangered species under jurisdiction and Section 7 consultation process.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor

Enclosures
jpz
cc:
USFWS, RO, Jerry Ziewitz
DNER, San Juan
COE, San Juan
NOAA Fisheries, Cabo Rojo
EPA, Guaynabo
USCG, San Juan
PRPB, San Juan
EQB, San Juan

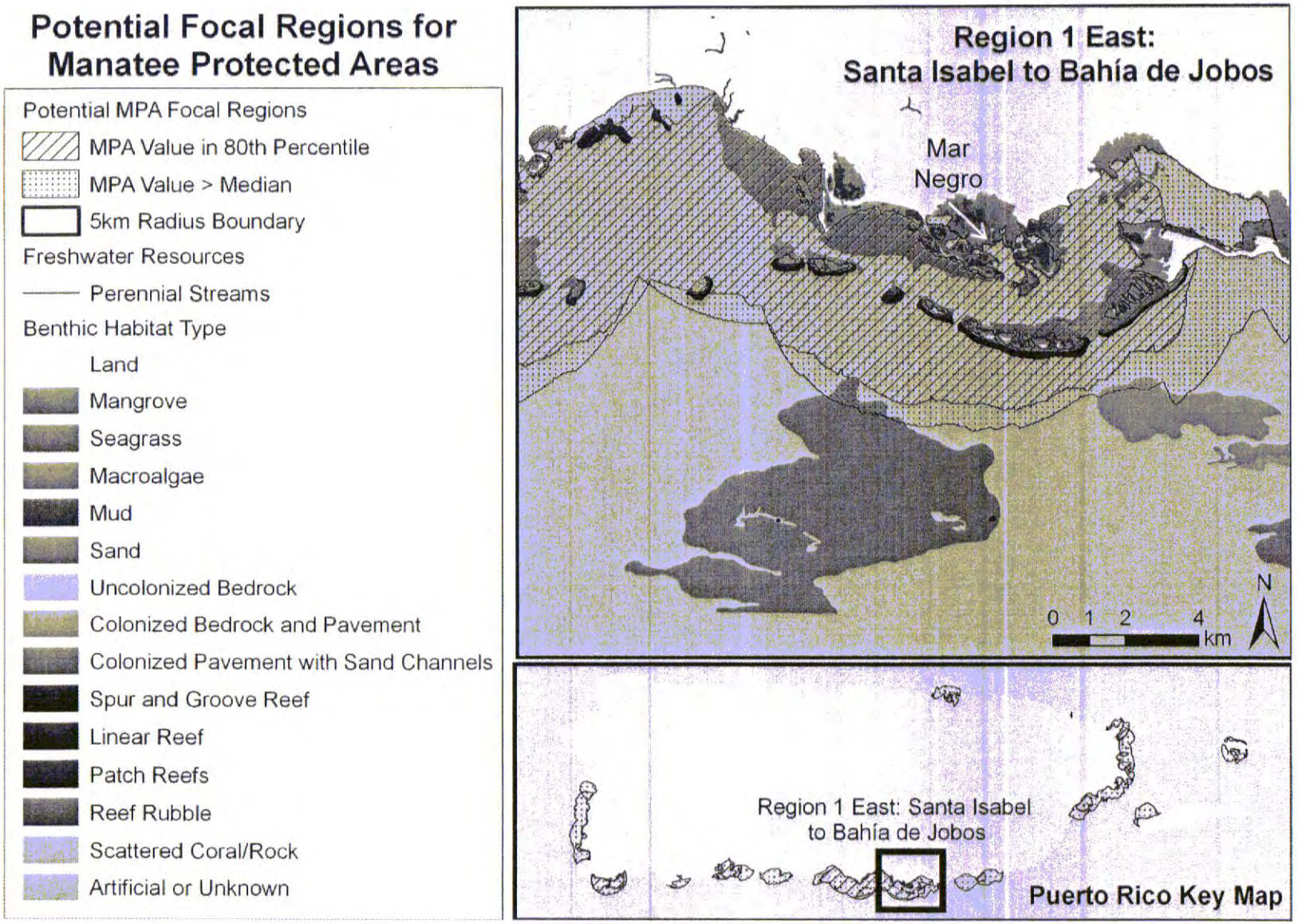


Figure 17: Potential MPA region encompassing coastal waters from Santa Isabel to Bahía de Jobos. Landmarks named on map are features associated with published manatee observations. The western half of this same area is shown in Figure 18.

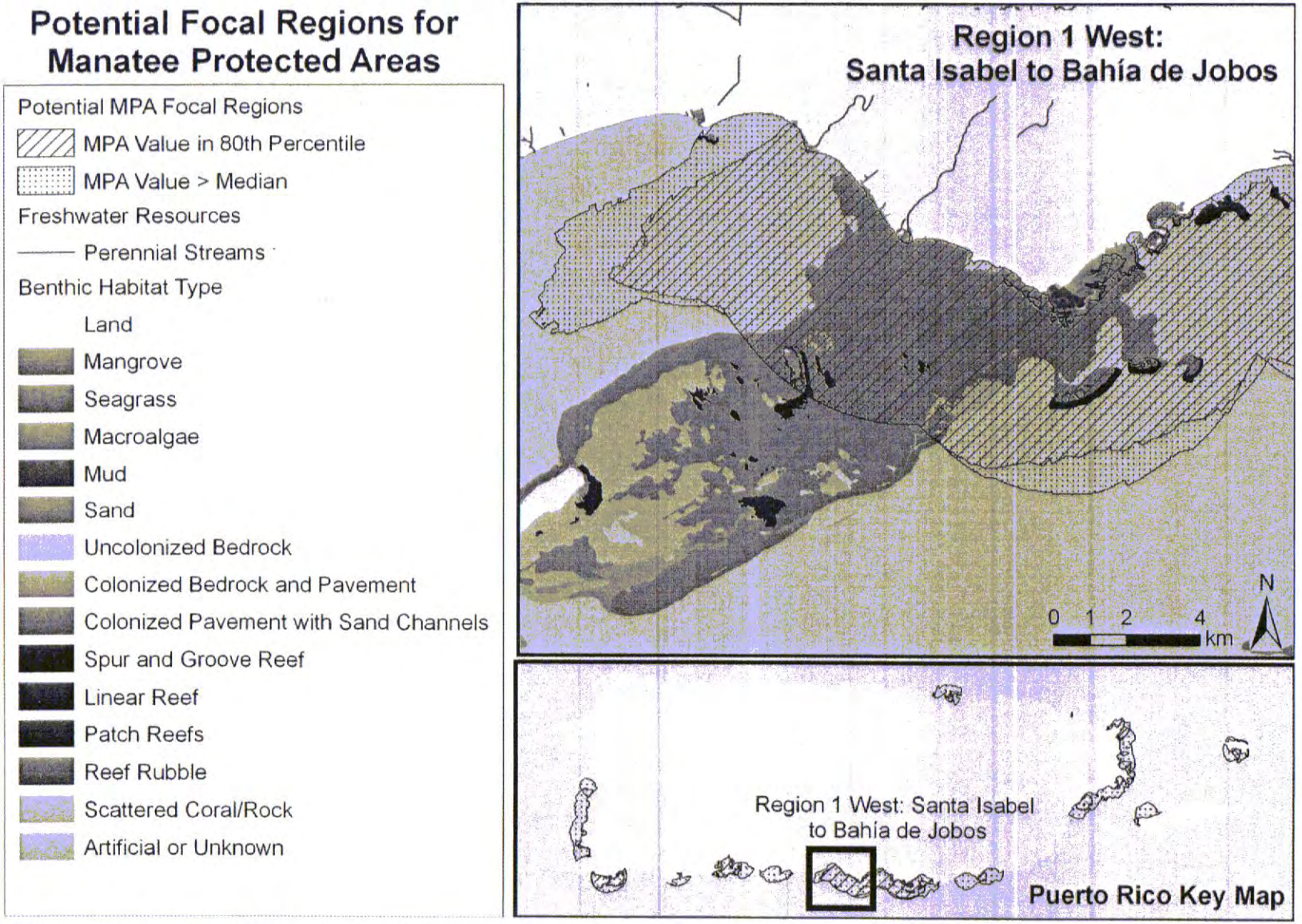
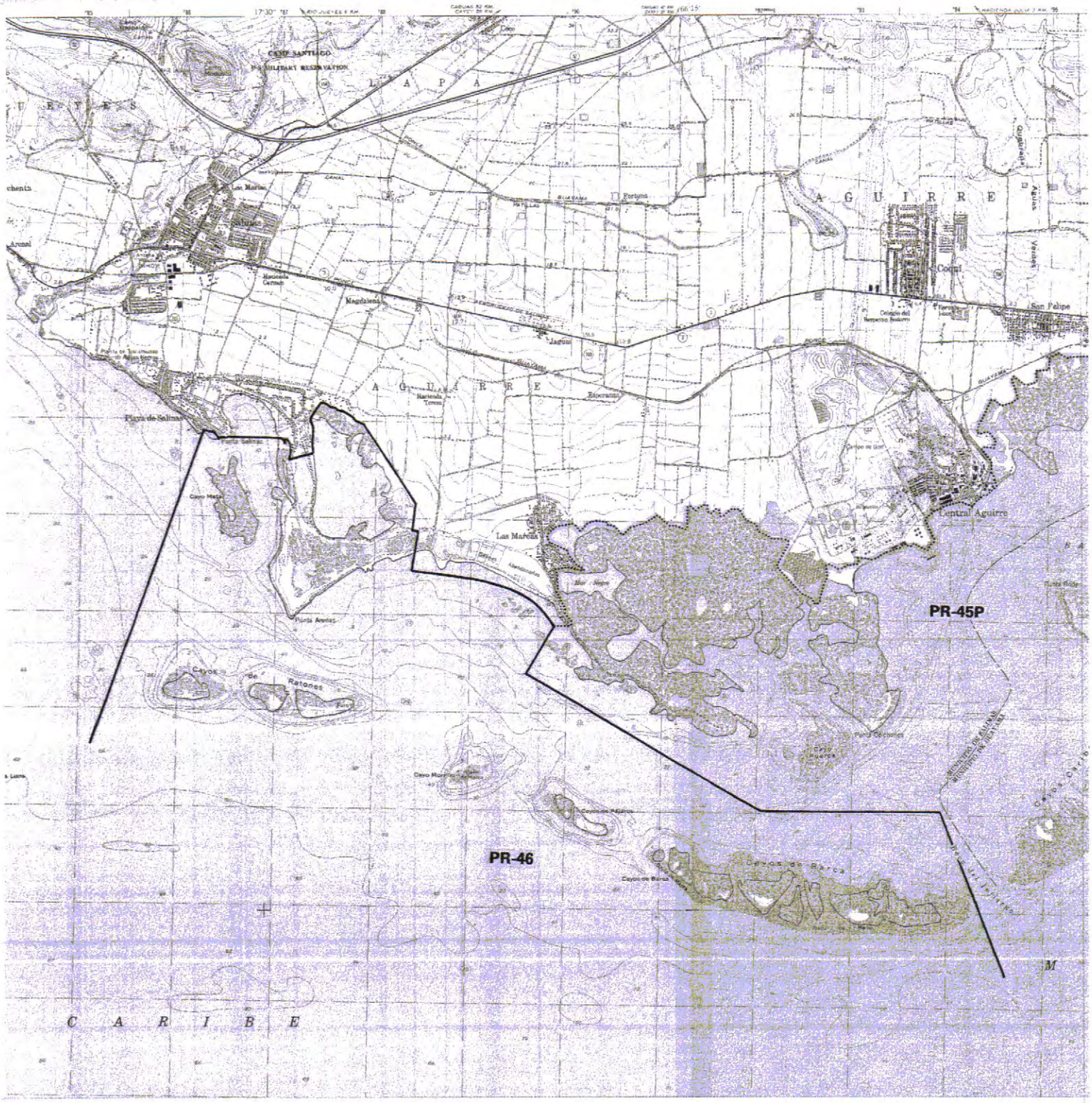


Figure 18: Potential MPA region encompassing coastal waters from Santa Isabel to Bahía de Jobos. No landmarks within this section of the region were specifically named in association with published manatee observations. The eastern half of this same area is shown in Figure 17.



COASTAL BARRIER RESOURCES SYSTEM

BAHIA DE JOBOS UNIT PR-45P
CAYOS DE BARCA/RATONES COMPLEX PR-46

This map has been produced by the U.S. Fish and Wildlife Service from a set of maps adopted by Congress pursuant to the Coastal Barrier Improvement Act P.L. 101-591 and supersedes all previous maps prepared by the Service concerning undeveloped coastal barriers. The boundary delineation of this map is identical to that adopted by Congress.

Scale 1:20,000

0 1/2 1 2 Miles

0 1000 2000 4000 6000 8000 Feet

0 .5 1 1 Kilometers

—— Solid lines depict units in the CBRS.

—— Dotted lines depict "otherwise protected areas" not within the CBRS. These areas are shown with the Letter "P" following the unit number.

October 24, 1990

COASTAL BARRIER RESOURCES SYSTEM

LAS MAREAS UNIT PR-44
BAHIA DE JOBOS UNIT PR-45/PR-45P

This map has been produced by the U.S. Fish and Wildlife Service from a set of maps adopted by Congress pursuant to the Coastal Barrier Improvement Act P.L. 101-591 and supersedes all previous maps prepared by the Service concerning undeveloped coastal barriers. The boundary delineation of this map is identical to that adopted by Congress.

Scale 1:20,000

0 1/2 1 2 Miles
0 1000 2000 4000 6000 8000 Feet
0 .5 1 2 Kilometers

—— Solid lines depict units in the CBRS.

—— Dotted lines depict "otherwise protected areas" not within the CBRS. These areas are shown with the Letter "P" following the unit number.

October 24, 1990