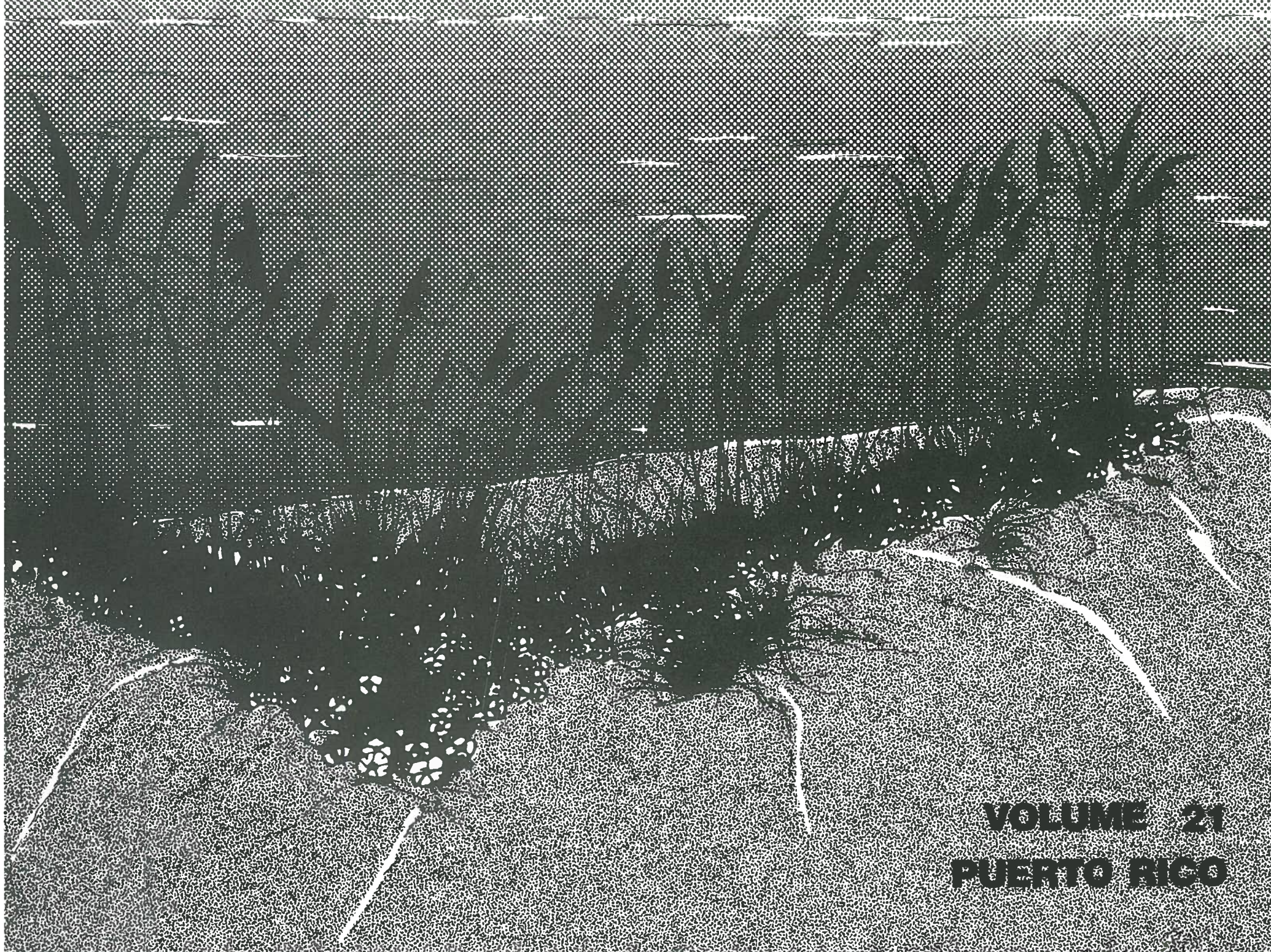


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REPORT TO CONGRESS: COASTAL BARRIER RESOURCES SYSTEM

Proposed Recommendations for Additions to or Deletions
from the Coastal Barrier Resources System



**VOLUME 21
PUERTO RICO**

U.S. Department of the Interior

February 1987



REPORT TO CONGRESS: COASTAL BARRIER RESOURCES SYSTEM

VOLUME 21

**Proposed Recommendations for Additions to or Deletions from
the Coastal Barrier Resources System**

PUERTO RICO

Mapped, edited, and published by the Coastal Barriers Study Group

**United States Department of the Interior
William P. Horn, Assistant Secretary for Fish and Wildlife and Parks**

February 1987

TABLE OF CONTENTS

| | Page |
|--|-------------|
| Introduction..... | 1 |
| Background..... | 1 |
| Coastal Resource Management..... | 2 |
| Existing CBRS Units..... | 4 |
| Proposed Additions | 4 |
| Table: Summary of Proposed Recommendations..... | 4 |
| Index to Proposed CBRS Units..... | 10 |
| Table: Proposed CBRS Units and Their Location in This Volume..... | 11 |
| Map Key..... | 12 |
| Unit Maps..... | 13 |

PUERTO RICO

INTRODUCTION

The Coastal Barrier Resources Act (CBRA) of 1982 (Public Law 97-348) established the Coastal Barrier Resources System (CBRS), a system of undeveloped coastal barriers along the Atlantic and Gulf of Mexico coasts. This atlas of coastal barriers in Puerto Rico has been prepared in accordance with Section 10 of CBRA (16 U.S.C. 3509), which states:

Sec. 10. Reports to Congress.

(a) In General.--Before the close of the 3-year period beginning on the date of the enactment of this Act, the Secretary shall prepare and submit to the Committees a report regarding the System.

(b) Consultation in Preparing Report.--The Secretary shall prepare the report required under subsection (a) in consultation with the Governors of the States in which System units are located and with the coastal zone management agencies of the States in which System units are located and after providing opportunity for, and considering, public comment.

(c) Report Content.--The report required under subsection (a) shall contain--

(1) recommendations for the conservation of fish, wildlife, and other natural resources of the System based on an evaluation and comparison of all management alternatives, and combinations thereof, such as State and local actions (including management plans approved under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.)), Federal actions (including acquisition for administration as part of the National Wildlife Refuge System), and initiatives by private organizations and individuals;

(2) recommendations for additions to, or deletions from, the Coastal Barrier Resources System, and for modifications to the boundaries of System units;

(3) a summary of the comments received from the Governors of the States, State coastal zone management agencies, other government officials, and the public regarding the System; and

(4) an analysis of the effects, if any, that general revenue sharing grants made under Section 102 of the State and Local Fiscal Assistance Amendments of 1972 (31 U.S.C. 1221) have had on undeveloped coastal barriers.

This atlas of Puerto Rico includes delineations of proposed recommendations for additions to the CBRS that will be provided to Congress by the Department of the Interior following public review and comment. No units were designated in Puerto Rico when CBRA was enacted in 1982.

Under the direction of the Assistant Secretary for Fish and Wildlife and Parks, this report has been prepared by the Coastal Barriers Study Group, a task force of professionals representing the National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, and other Departmental offices.

BACKGROUND

Puerto Rico is the easternmost island of the Greater Antilles. Mona, Vieques, Culebra, and numerous smaller islands lie immediately offshore from the main island and are part of the Commonwealth. Puerto Rico has an area of 3,435 square miles.

Coastal ecosystems in Puerto Rico include mangroves, coral reefs, beaches, seagrass beds, and salt ponds. Mangroves are very productive ecosystems which support a great diversity of fish, birds, and other wildlife. They are vital feeding, nesting, and roosting areas for several species of birds and important nurseries for fish and shellfish species of commercial importance.

Seagrass beds and coral reefs are other highly productive ecosystems which are extensive in the shallow waters around these islands. Several species of commercially important fishes shelter in coral reefs during the day and feed in grass beds at night. Coral reefs have economic value for recreation and tourism, and provide vital protection for harbors and shorelines because they dissipate wave energies and reduce erosion. Harvestable coral reef resources include fish, spiny lobsters, octopuses, and conchs. The breakdown of corals produces sand for beaches. Reefs and seagrass beds buffer wave energies and promote beach stability.

12 nautical miles out from the island. Further, it established the responsibility for the regulation of fishing with DNR.

DNR Regulations, Chapter 3, Subchapter 45, Regulation of Fishing. DNR requires a permit in writing from the Secretary of Agriculture and Commerce for a company or corporation before it will permit the construction of dikes or other obstacles that prevent the free passage of fish. DNR also limits the daily catches, mode of fishing and equipment used, and the sale of fish.

Law 144. This law amended Law 132 of June 25, 1968, thereby expanding and further refining the jurisdiction of DNR to regulate public viewsheds, especially their excavation or similar disruption. It also created a public fund for DNR activities.

Puerto Rico Forest Act, No 133, July 1, 1975. This act provided for the creation and regulation of Commonwealth Forests, delineated unlawful acts in Commonwealth Forests, and established all Commonwealth Forests as refuges for wildlife. It also created a Puerto Rico Forest Service and specified its responsibilities.

DNR Regulations to Control the Extraction, Possession, Transportation, and Sale of Coral Resources in Puerto Rico, October 11, 1979. Under authority conferred to it by the Organic Act of 1972 and the Fishing Law of 1936 and its amendments, DNR adopted regulations for the protection of coral resources in the Commonwealth.

Law 82 of July 7, 1979. This law created the Corporation for the Development and Administration of Marine, Lake, and Flowing Water Resources within the DNR. It recognized Puerto Rico's dependence on marine resources for food and development and put regulations on commercial and industrial activities in coastal zones.

DNR Bylaws to Regulate the Extraction of Materials from the Earth's Crust (Mining Law). This law regulated the granting of permits for the extraction, excavation, removal, and dredging of sand, gravel, stone, clay, or other such components not regulated as economic minerals, on both public and private lands in Puerto Rico. Article 10 recognized deposits of special public interest and defined and regulated them.

Law 145, 1975. This law created a Corporation for the Development of the Mineral Resources of Puerto Rico. It gave the corporation the financial capacity and operational ability to develop the mineral resources of the Commonwealth, subject to the Organic Law for DNR and the Mining Law.

Law 86, July 6, 1985, Off-Road Vehicles Law. This is an addition to Law 141 of July 20, 1960, Law of Vehicles and Transit in Puerto Rico. Law 86 prohibits the use of off-road vehicles of all kinds on public lands and beaches of Puerto Rico.

Law 66, June 22, 1975. This law established public policy for the use of five parcels on the island (totaling 1,566 cuerdas; 1 cuerda is roughly 1 acre) for recreation (in proposed recreational areas) and conservation.

License for the Use of Federal Lands, August 27, 1976. This agreement between DNR, the Commonwealth, and the U.S. Department of the Navy defined the use of Federal lands in 12 parcels.

U.S. Navy Lands. All Federal lands are exempt from the CZM Program regulations. However, Navy lands at Roosevelt Roads Naval Station on the east tip of Puerto Rico, and on Vieques, are unlikely to have significant further development without considerable effort expended in securing appropriate permits, especially in mangroves and wetlands under Navy control.

Memorandum of Understanding Regarding the Island of Vieques, October 11, 1983, between the U.S. Department of the Navy and Commonwealth of Puerto Rico. This agreement established a forestry program on Navy lands; provided for continual consultation with DNR on use of Navy lands for economic purposes and on wildlife habitat requirements; established seven lagoonal or mangrove conservation zones; provided for sea turtle, sea mammal, and brown pelican management; continued the Navy's cultural resources preservation program; and established a Management Advisory Committee to assist the Navy in managing natural resources on the island, with representatives from the DNR, Navy, U.S. Fish and Wildlife Service, and the U.S. Forest Service.

Planning Board Regulation 16, Adoption and Regulation of Zones of Tourism Interest, March 30, 1979. This regulation provided for the development and regulation of areas of interest for tourism purposes. It established and classified zones in these areas and provided for their regulation and administration.

Planning Board Regulations for Special Planning Areas. The Bajura Isabela Special Planning Area was delineated in regulations in January 1980. The Planning Board regulates the sand dunes of Jacinto, as well as the mangroves, beaches, and other coastal resources that are not protected by other legislation or are in need of special planning activities because of their exposure to development pressures.

Law 70, Wildlife Law, May 30, 1976. Law 70 regulated the conservation of wildlife, native and migratory birds and animals, and the introduction of other species into Puerto Rico. It also authorized DNR to develop regulations for hunting.

DNR Regulations for Management of Wildlife and Hunting, May 17, 1978. These regulations enumerate dove and pigeon species and waterfowl that can be hunted, and endangered species that cannot. It also lists mangrove forests and lakes where hunting is prohibited (many of which are DNR lands).

DNR Regulations for the Use, Management, and Administration of Recreation Areas under the Jurisdiction of DNR, April 29, 1980. DNR adopted regulations for its recreation areas.

Natural Reserves. The Natural Reserve Program began in 1976. The Planning Board has designated 26 potential reserves, of which about 7 have been formally put into place. At

present, these Reserves have no legal protective status and exist largely as planning mechanisms.

Local Actions

Municipalities have no powers to zone their lands or to introduce land use controls. This power is reserved for the Commonwealth and is exercised by the Planning Board. For planning purposes, the coastal zone (as defined by the CZM Program) extends 0.62 miles inland and 3 miles out to sea. The CZM office in Puerto Rico is largely funded by the Federal program and is located within the offices of DNR in San Juan.

Federal Law Specific to Puerto Rico

U.S. Public Law 96205, March 1980. The law extends jurisdiction of the Commonwealth out to 3 marine leagues (10.3 miles). Two bills are currently being considered in Congress to address coastal zone extensions from 10.3 to 12 miles.

Jacobs Bay National Estuarine Sanctuary. Administered jointly by National Oceanic Atmospheric Administration and DNR, this is currently the only such Estuarine Sanctuary in Puerto Rico. It was established to afford Federal protection to a bay undergoing considerable development, yet offering exceptional natural resources.

EXISTING CBRS UNITS

No units were designated in Puerto Rico when CBRA was enacted in 1982.

PROPOSED ADDITIONS

This section identifies proposed additions to the Coastal Barrier Resources System. The Secretary of the Interior, as directed by Section 10 of the Coastal Barrier Resources Act, will make his final recommendation to the Congress after a 90-day public comment period. The following proposed recommendations have been developed in response to public, State and Federal agency, and Congressional comments on the Coastal Barrier Draft Inventory developed by the Study Group. The inventory maps were available for public comment between March 4, 1985, and September 30, 1985. The process and criteria used in the inventory were described on March 4, 1985, in the Federal Register (Vol. 50, No. 42).

The Government of the Commonwealth of Puerto Rico did not respond to requests for comment on the draft inventory. The Department received five public comments concerning Puerto Rico. All were in favor of the CBRS expansion.

The Department of the Interior recommends that all undeveloped, unprotected coastal barriers and associated aquatic habitat identified in the inventory be added to the CBRS. A table presenting the Department's current position on each unit identified in the inventory follows this discussion.

Public comment on the proposed recommendations is solicited.

Comments should be directed to:

The Coastal Barriers Study Group
Department of the Interior
National Park Service
P.O. Box 37127
Washington, DC 20013-7127.

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS IN PUERTO RICO

| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------|------------------------|--------------------------|--------------------------|--------------|---------------------------------------|
| PR-00 | Punta Boca Juana | Dorado | 1.45 | 63 | Add to CBRS; new area in inventory |
| PR-01 | Espiritu Santo | Rio Grande | 1.25 | 430 | Add to CBRS; no change from inventory |
| PR-02 | Ensenada Comezon | Rio Grande | 3.11 | 1,056 | Add to CBRS; no change from inventory |
| PR-03 | Rio Mameyes | Rio Grande | 1.00 | 166 | Add to CBRS; no change from inventory |
| PR-04 | Punta la Bandera | Luquillo | 0.35 | 33 | Add to CBRS; no change from inventory |
| PR-05 | Luquillo Spit | Luquillo | 0.61 | 72 | Add to CBRS; no change from inventory |
| PR-06 | Juan Martin Spit | Luquillo | 0.87 | 107 | Add to CBRS; no change from inventory |

(continued)

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS
IN PUERTO RICO (CONTINUED)

| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------------|---------------------------|-----------------------------|--------------------------------|-----------------|--|
| PR-07 | Laguna Aguas Prietas | Fajardo | 1.81 | 415 | Add to CBRS; no change from inventory |
| PR-08 | Cabo San Juan | Fajardo | 1.45 | 351 | Add to CBRS with additional wetlands not delineated in the original inventory |
| PR-09 | Rio Fajardo | Fajardo | — | — | Commonwealth protected; no further consideration |
| PR-10 | Punta Barrancas | Fajardo | 0.27 | 56 | Add to CBRS; no change from inventory |
| PR-11 | Punta Figueras | Fajardo | — | — | Military (Navy); no further consideration |
| PR-12 | Playa Flamenco | Culebra | — | — | Commonwealth protected; no further consideration |
| PR-13 | Playa Brava | Culebra | — | — | Commonwealth protected; no further consideration |
| PR-14 | Playa Larga | Culebra | — | — | Commonwealth protected; no further consideration |
| PR-15 | Laguna de Molinos | Culebra | — | — | Federally protected (FWS); no further consideration |
| PR-16 | Culebrita Tombolo | Culebra | — | — | Federally protected (FWS); no further consideration |
| PR-17 | Puerto del Manglar | Culebra | — | — | Federally protected (FWS); no further consideration |
| PR-18 | Punta Arenas | Vieques | — | — | Military (Navy); no further consideration |
| PR-19 | Playa Grande | Vieques | — | — | Military (Navy); no further consideration |
| PR-20 | Puerto Negro | Vieques | — | — | Military (Navy); no further consideration |
| PR-21 | Bahia Playa Blanca | Vieques | — | — | Military (Navy); no further consideration |
| PR-22 | Laguna Anones | Vieques | — | — | Military (Navy); no further consideration |
| PR-23 | Ensenada Honda | Vieques | — | — | Military (Navy); no further consideration |
| PR-24 | Laguna Yanuel | Vieques | — | — | Military (Navy); no further consideration |
| PR-25 | Bahia de la Chiva | Vieques | — | — | Military (Navy); no further consideration |

(continued)

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS
IN PUERTO RICO (CONTINUED)

| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------|-------------------------|--------------------------|--------------------------|--------------|---|
| PR-26 | Bahia Tapon | Vieques | — | — | Military (Navy); no further consideration |
| PR-27 | Puerto Ferro | Vieques | — | — | Military (Navy); no further consideration |
| PR-28 | Ensenada Sombe | Vieques | — | — | Commonwealth protected; no further consideration |
| PR-29 | Cayo de Tierra | Vieques | — | — | Military (Navy); no further consideration |
| PR-30 | Laguna Playa Grande | Vieques | — | — | Military (Navy); no further consideration |
| PR-31 | Medio Mundo | Ceiba | — | — | Military (Navy); no further consideration |
| PR-32 | Isla Pineros | Ceiba | — | — | Military (Navy); no further consideration |
| PR-33 | Roosevelt Roads | Ceiba | — | — | Military (Navy); no further consideration |
| PR-34 | Punta Cascajo | Ceiba | — | — | Military (Navy); no further consideration |
| PR-35 | Rio Dagua | Ceiba | — | — | Military (Navy); no further consideration |
| PR-36 | Bosque Estatal de Ceiba | Naguabo | — | — | Commonwealth protected; no further consideration |
| PR-37 | Punta Santiago | Naguabo | — | — | Commonwealth protected; no further consideration |
| PR-38 | Punta Candelero | Humacao | 1.18 | 268 | Add to CBRS; no change from inventory |
| PR-39 | Puerto Yabucoa | Yabucoa | 0.56 | 43 | Add to CBRS; no change from inventory |
| PR-40 | Punta Tuna | Maunabo | 0.55 | 42 | Add to CBRS; no change from inventory |
| PR-41 | Rio Maunabo | Maunabo | 0.87 | 51 | Add to CBRS; no change from inventory |
| PR-42 | Punta Viento | Patillas | 1.24 | 177 | Add to CBRS; no change from inventory |
| PR-43 | Las Mareas | Guayama | 0.94 | 148 | Add to CBRS; no change from inventory |
| PR-44 | Bahia de Jobos | Guayama | — | — | Commonwealth protected; no further consideration |
| PR-45 | Mar Negro | Salinas | 3.1 | 794 | Add eastern 1/4 to CBRS; western 3/4 Commonwealth protected, no further consideration |

(continued)

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS
IN PUERTO RICO (CONTINUED)

| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------|------------------------|--------------------------|--------------------------|--------------|---|
| PR-46 | Arenal | Salinas | 0.72 | 33 | Add to CBRS; no change from inventory |
| PR-47 | Punta Petrona | Santa Isabel | 5.07 | 801 | Add to CBRS; no change from inventory |
| PR-48 | Rincon Keys | Santa Isabel | 1.54 | 49 | Add to CBRS; no change from inventory |
| PR-49 | Cayo Berberia | Santa Isabel | — | — | Commonwealth protected; no further consideration |
| PR-50 | Chardon | Santa Isabel | 0.32 | 11 | Add to CBRS; no change from inventory |
| PR-51 | Rio Descalabrado | Juana Diaz | 0.34 | 17 | Add to CBRS; no change from inventory |
| PR-52 | Punta Pastillo | Juana Diaz | 0.42 | 56 | Add to CBRS; no change from inventory |
| PR-53 | Bajo de Marea | Juana Diaz | 0.35 | 17 | Add to CBRS; no change from inventory |
| PR-54 | Rio Jacaguas | Ponce | 0.50 | 22 | Add to CBRS; no change from inventory |
| PR-55 | Cayos Frios | Ponce | 0.45 | 10 | Add to CBRS; no change from inventory |
| PR-56 | Punta Cabullones | Ponce | 2.45 | 1,093 | Add to CBRS; no change from inventory |
| PR-57 | Punta Cucharas | Ponce | 1.58 | 308 | Add to CBRS, except city park |
| PR-58 | Tallaboa Keys | Penuelas | 2.11 | 125 | Add to CBRS; no change from inventory |
| PR-59 | Punta Ballena | Yauco | 2.42 | 385 | Add Punta Verraco segment to CBRS; Guanica segment Commonwealth protected, no further consideration |
| PR-60 | Punta Meseta | Guanica | — | — | Commonwealth protected; no further consideration |
| PR-61 | Ensenada las Pargas | Guanica | 0.44 | 14 | Add to CBRS; no change from inventory |
| PR-62 | Punta Jorobado | Guanica | — | — | Commonwealth protected; no further consideration |
| PR-63 | Cayo Don Luis | Guanica | 0.27 | 7 | Add to CBRS; no change from inventory |
| PR-64 | Bahia Montalva | Guanica | 4.39 | 110 | Add to CBRS; no change from inventory |
| PR-65 | Margarita | Lajas | — | — | Commonwealth protected; no further consideration |

(continued)

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS
IN PUERTO RICO (CONTINUED)

| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------|------------------------|--------------------------|--------------------------|--------------|---|
| PR-66 | Cabo Rojo | Cabo Rojo | 5.3 | 958 | Add western segment to CBRS; eastern segment Commonwealth protected, no further consideration |
| PR-67 | Bahia de Boqueron | Cabo Rojo | 0.20 | 31 | Add Laguna Guaniquilla to CBRS; remaining Commonwealth protected, no further consideration |
| PR-68 | Boca Prieta | Cabo Rojo | 0.23 | 22 | Add to CBRS; no change from inventory |
| PR-69 | Punta Carenero | Cabo Rojo | 4.23 | 342 | Add to CBRS, except development south of Punta la Mela |
| PR-70 | Belvedere | Cabo Rojo | 0.34 | 31 | Add to CBRS; no change from inventory |
| PR-71 | Garita | Cabo Rojo | — | — | Developed; no further consideration |
| PR-72 | Punta Guanajibo | Mayaguez | 0.48 | 81 | Add to CBRS; no change from inventory |
| PR-73 | Cano Corazones | Mayaguez | 0.33 | 187 | Add to CBRS; no change from inventory |
| PR-74 | Cano Boquilla | Mayaguez | — | — | Developed; no further consideration |
| PR-75 | Espinar | Aguadilla | 0.71 | 57 | Add southern segment to CBRS; northern segment Commonwealth protected, no further consideration |
| PR-76 | Punta Agujereada | Aguadilla | 0.62 | 97 | Add to CBRS; no change from inventory |
| PR-77 | Bajura | Isabela | 0.47 | 67 | Add to CBRS; no change from inventory |
| PR-78 | Guayabos | Isabela | 0.46 | 33 | Add to CBRS; no change from inventory |
| PR-79 | Penon Brusi | Camuy | 0.60 | 72 | Add to CBRS; no change from inventory |
| PR-80 | Punta Maracayo | Camuy | 0.53 | 47 | Add to CBRS; no change from inventory |
| PR-81 | Puerto de Arecibo | Arecibo | 0.51 | 76 | Add to CBRS; no change from inventory |
| PR-82 | Punta Manati | Manati | 0.30 | 26 | Add to CBRS; no change from inventory |
| PR-83 | Tortuguero | Manati | — | — | Commonwealth/Federal protected; no further consideration |
| PR-84 | Rio Cibuco | Vega Baja | 0.41 | 599 | Add to CBRS; no change from inventory |
| PR-85 | Rio Cocal | Toa Baja | — | — | Military (Navy); no further consideration |

(continued)

SUMMARY OF PROPOSED RECOMMENDATIONS FOR COASTAL BARRIERS
IN PUERTO RICO (CONCLUDED)

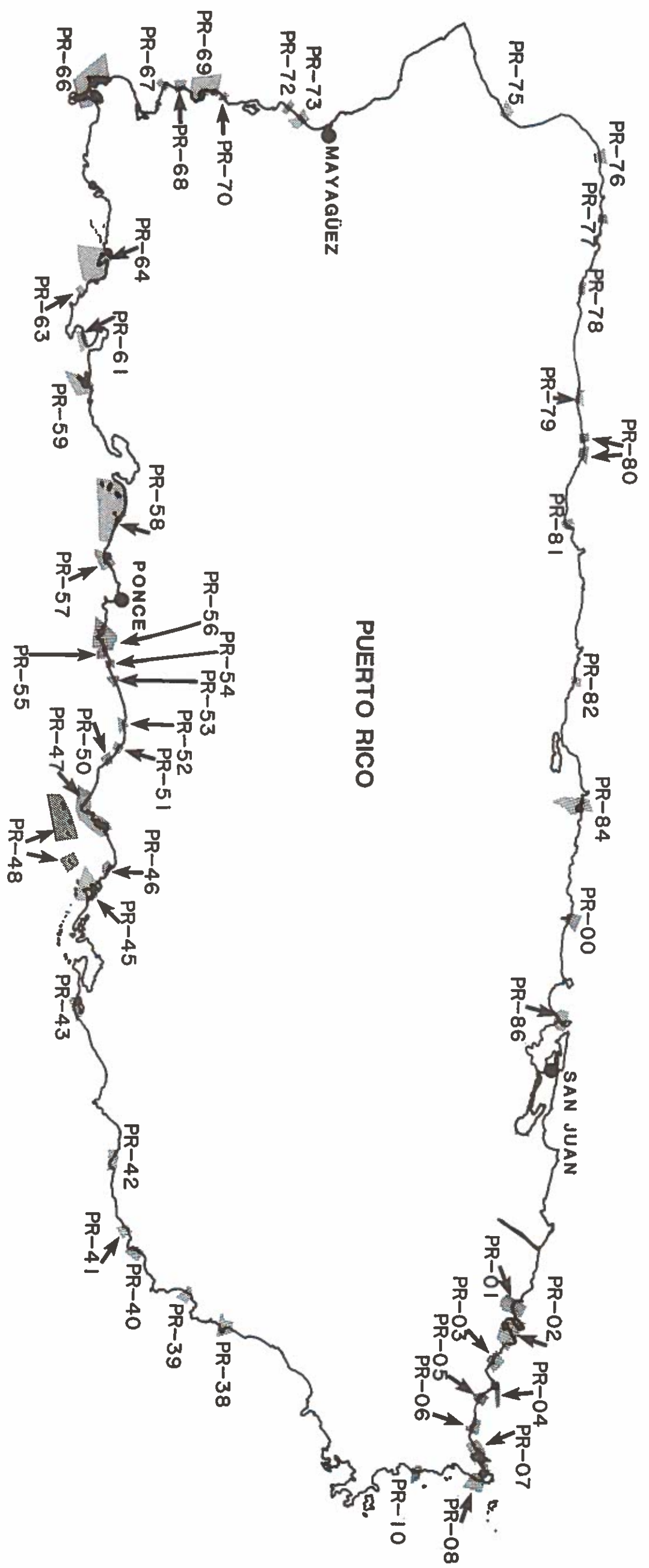
| Unit ID Code ^a | Unit Name ^b | Municipality (Municipio) | Shoreline Length (miles) | Area (acres) | Proposed Recommendation ^c |
|---------------------------------|---------------------------------|-----------------------------|--------------------------------|-----------------|--|
| PR-86 | Punta Salinas | Toa Baja | 1.43 | 126 | Add to CBRS; no change from inventory |
| PR-87 | Bosque Estatal de Pinones | Carolina | — | — | Commonwealth protected; no further consideration |
| Total - CBRS as Recommended | | | 61.13 | 10,182 | |

^aUNIT ID CODE - The Commonwealth initials and a number identifying each separate proposed unit.

^bUNIT NAME - A provisional name based on a prominent local feature.

^cPROPOSED RECOMMENDATION - A brief explanation of the differences between the 1985 inventory and the recommendations proposed in this revised inventory. For more detailed explanations, please contact the Study Group. Abbreviations: FWS = Fish and Wildlife Service, NPS = National Park Service, CBRS = Coastal Barrier Resources System. Barriers no longer under consideration are not mapped in this atlas.

INDEX TO PROPOSED CBRS UNITS IN PUERTO RICO




USER NOTE: To locate the map(s) of each proposed CBRS unit in this volume, consult the table on the following page .

PROPOSED CBRS UNITS AND THEIR LOCATION IN THIS VOLUME

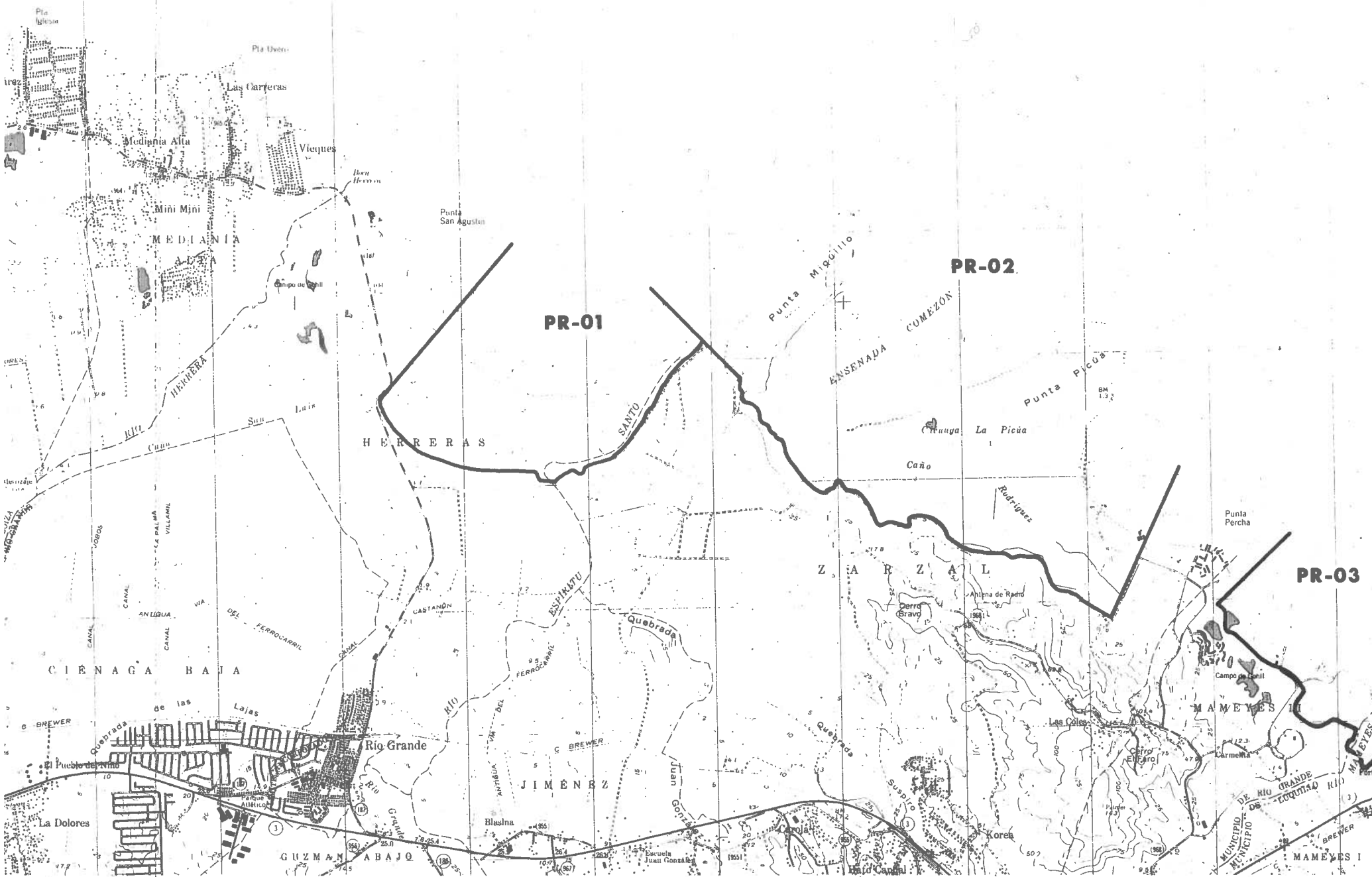
| Unit ID Code | Unit Name | USGS Topographic Map or Map Composite | Page |
|--------------|----------------------|---------------------------------------|------|
| PR-00 | Punta Boca Juana | Vega Alta | 13 |
| PR-01 | Espiritu Santo | Rio Grande | 14 |
| PR-02 | Ensenada Comezon | Rio Grande | 14 |
| PR-03 | Rio Mameyes | Rio Grande | 14 |
| PR-04 | Punta la Bandera | Fajardo | 15 |
| PR-05 | Luquillo Spit | Fajardo | 15 |
| PR-06 | Juan Martin Spit | Fajardo | 15 |
| PR-07 | Laguna Aguas Prietas | Fajardo | 15 |
| PR-08 | Cabo San Juan | Fajardo | 15 |
| PR-10 | Punta Barrancas | Fajardo | 15 |
| PR-38 | Punta Candelerio | Punta Guayanes | 16 |
| PR-39 | Puerto Yabucoa | Punta Guayanes | 16 |
| PR-40 | Punta Tuna | Punta Tuna | 17 |
| PR-41 | Rio Maunabo | Punta Tuna | 17 |
| PR-42 | Punta Viento | Punta Tuna | 17 |
| PR-43 | Las Mareas | Central Aguirre | 18 |
| PR-45 | Mar Negro | Salinas | 19 |
| PR-46 | Arenal | Salinas | 19 |
| PR-47 | Punta Petrona | Salinas | 19 |
| | | Santa Isabel | 20 |
| PR-48 | Rincon Keys | Salinas | 19 |
| | | Santa Isabel | 20 |
| PR-50 | Chardon | Santa Isabel | 20 |
| PR-51 | Rio Descalabrado | Santa Isabel | 20 |
| PR-52 | Punta Pastillo | Santa Isabel | 20 |
| PR-53 | Bajo de Marea | Playa de Ponce | 21 |
| PR-54 | Rio Jacaguas | Playa de Ponce | 21 |
| PR-55 | Cayos Frios | Playa de Ponce | 21 |
| PR-56 | Punta Cabullones | Playa de Ponce | 21 |
| PR-57 | Punta Cucharas | Punta Cuchara | 22 |
| PR-58 | Tallaboa Keys | Punta Cuchara | 22 |
| PR-59 | Punta Ballena | Punta Verraco | 23 |
| PR-61 | Ensenada las Pargas | Guanica | 24 |
| PR-63 | Cayo Don Luis | Guanica | 24 |
| PR-64 | Bahia Montaña | Guanica | 24 |
| PR-66 | Cabo Rojo | Cabo Rojo | 25 |
| PR-67 | Bahia de Boqueron | Puerto Real | 26 |
| PR-68 | Boca Prieta | Puerto Real | 26 |
| PR-69 | Punta Carenero | Puerto Real | 26 |
| PR-70 | Belvedere | Puerto Real | 26 |
| PR-72 | Punta Guanajibo | Mayaguez | 27 |
| PR-73 | Cano Corazones | Mayaguez | 27 |
| PR-75 | Espinar | Aguadilla | 28 |
| PR-76 | Punta Agujereada | Aguadilla | 28 |
| | | Isabela | 29 |
| PR-77 | Bajura | Isabela | 29 |
| PR-78 | Guayabos | Quebradillas | 30 |
| PR-79 | Penon Brusi | Camuy | 31 |
| PR-80 | Punta Maracayo | Camuy | 31 |
| PR-81 | Puerto Arecibo | Arecibo | 32 |
| PR-82 | Punta Manati | Barceloneta | 33 |
| PR-84 | Rio Cibuco | Manati | 34 |
| PR-86 | Punta Salinas | Bayamon | 35 |

MAP KEY

| | |
|---|--|
|  | Proposed unit boundary |
| EXCLUDED | Area excluded from a proposed CBRS unit because it is developed or it is otherwise protected |

A T L A N T I C

O C E A N



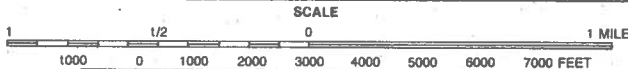
UNITED STATES
DEPARTMENT OF THE INTERIOR
DONALD P. MODEL, SECRETARY



14

Report to Congress on the Coastal Barrier Resources System

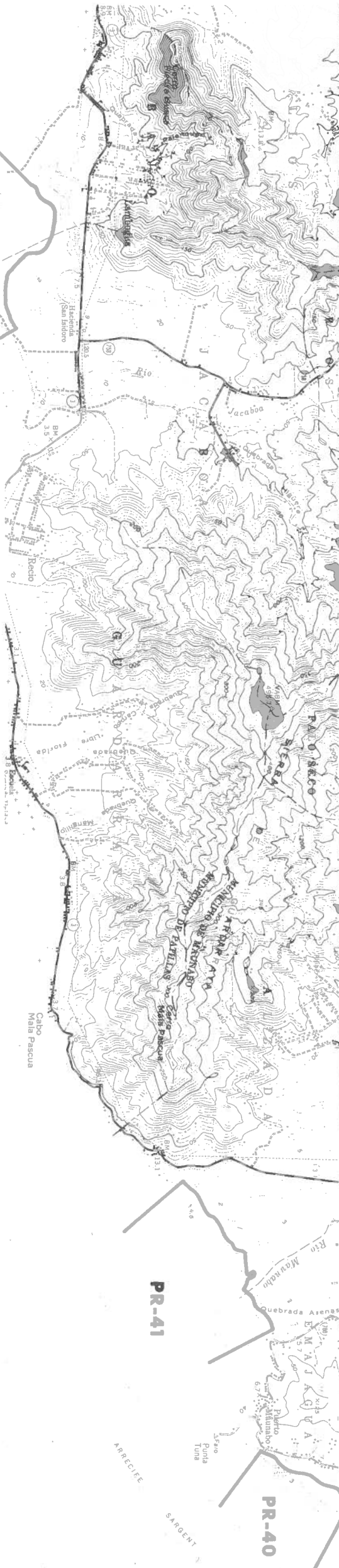
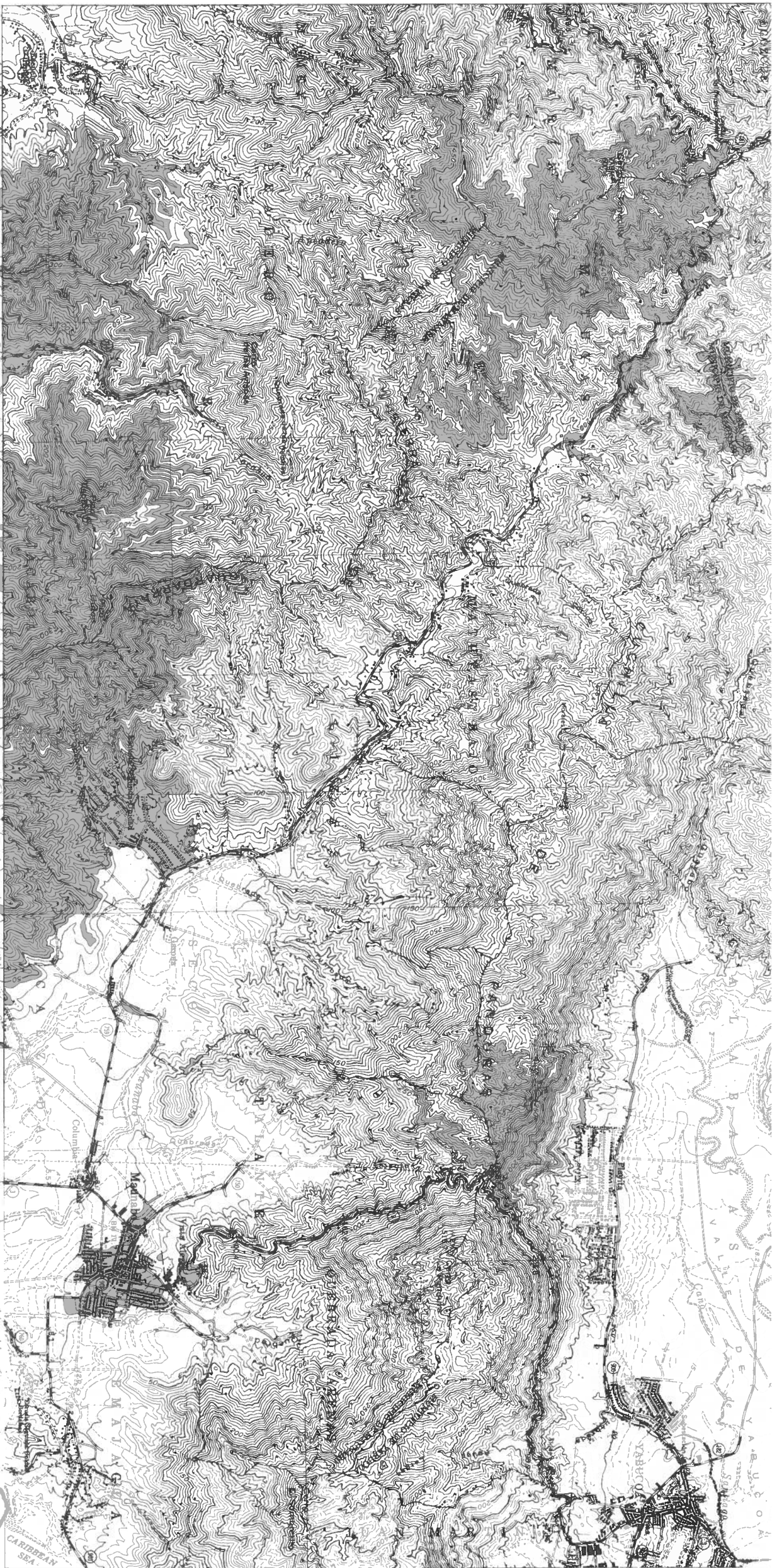
QUADRANGLE
RIO GRANDE
PUERTO RICO



Solid lines depict proposed recommendations for additions or deletions to the Coastal Barrier Resources System. (Section 10 of P.L. 97 - 348.)
Dash lines depict approximate boundaries of existing units in the Coastal Barrier Resources System, for reference purposes only.

Mapped, edited and published
by the Coastal Barriers Study Group
U.S. Department of the Interior
Washington, D.C. 20240

Base Map is the U.S. Geological Survey 1:20,000 scale quadrangle.

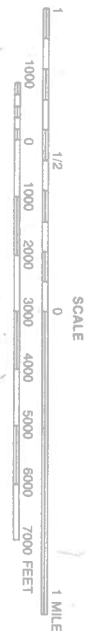


Report to Congress on the Coastal Barrier Resources System

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QUADRANGLE
PUNTA TUNA
PUERTO RICO



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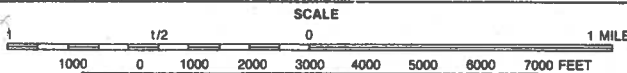


18



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QUADRANGLE
CENTRAL AGUIRRE
PUERTO RICO



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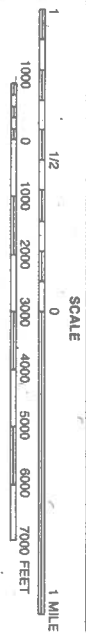
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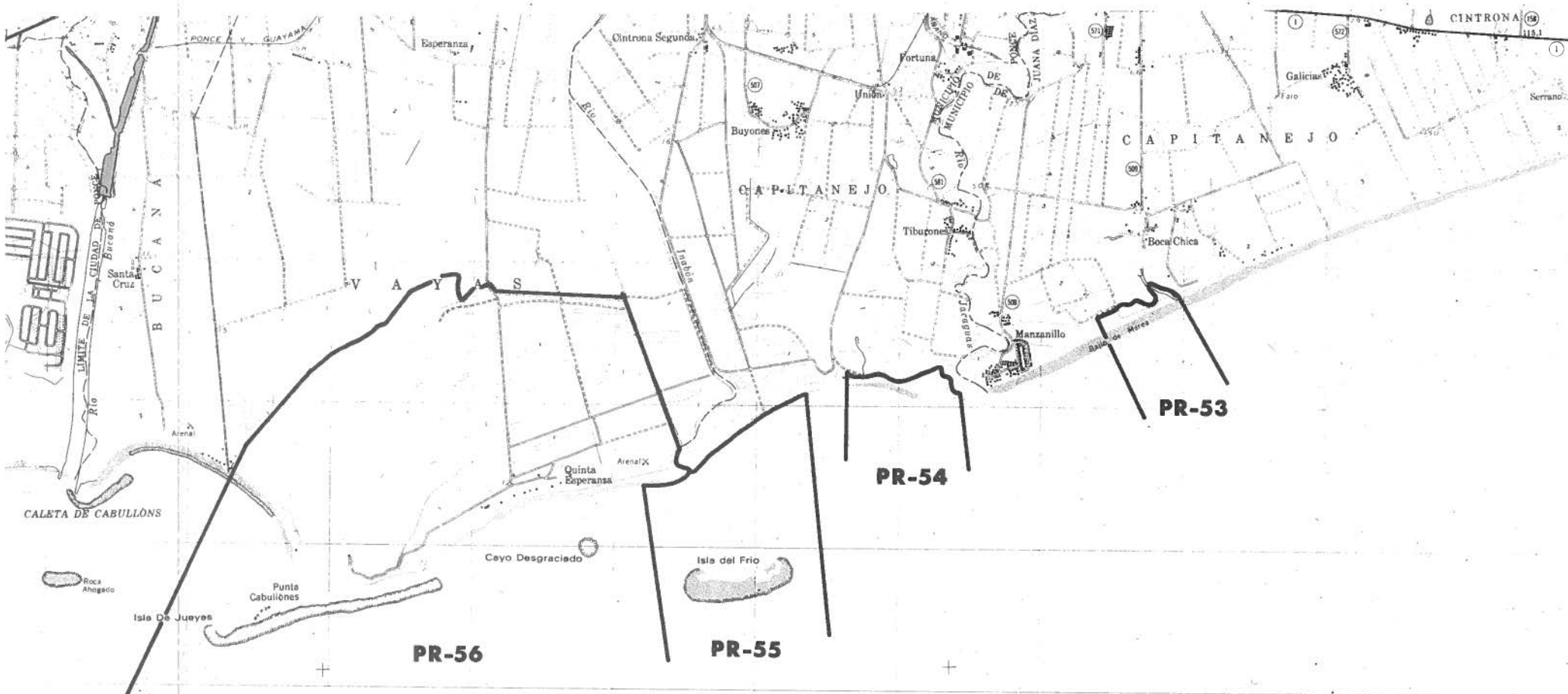


QUADRANGLE
SANTA ISABEL
PUERTO RICO

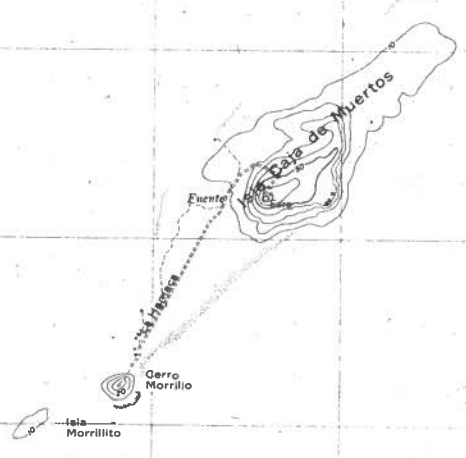
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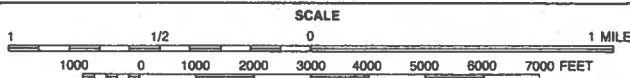


21



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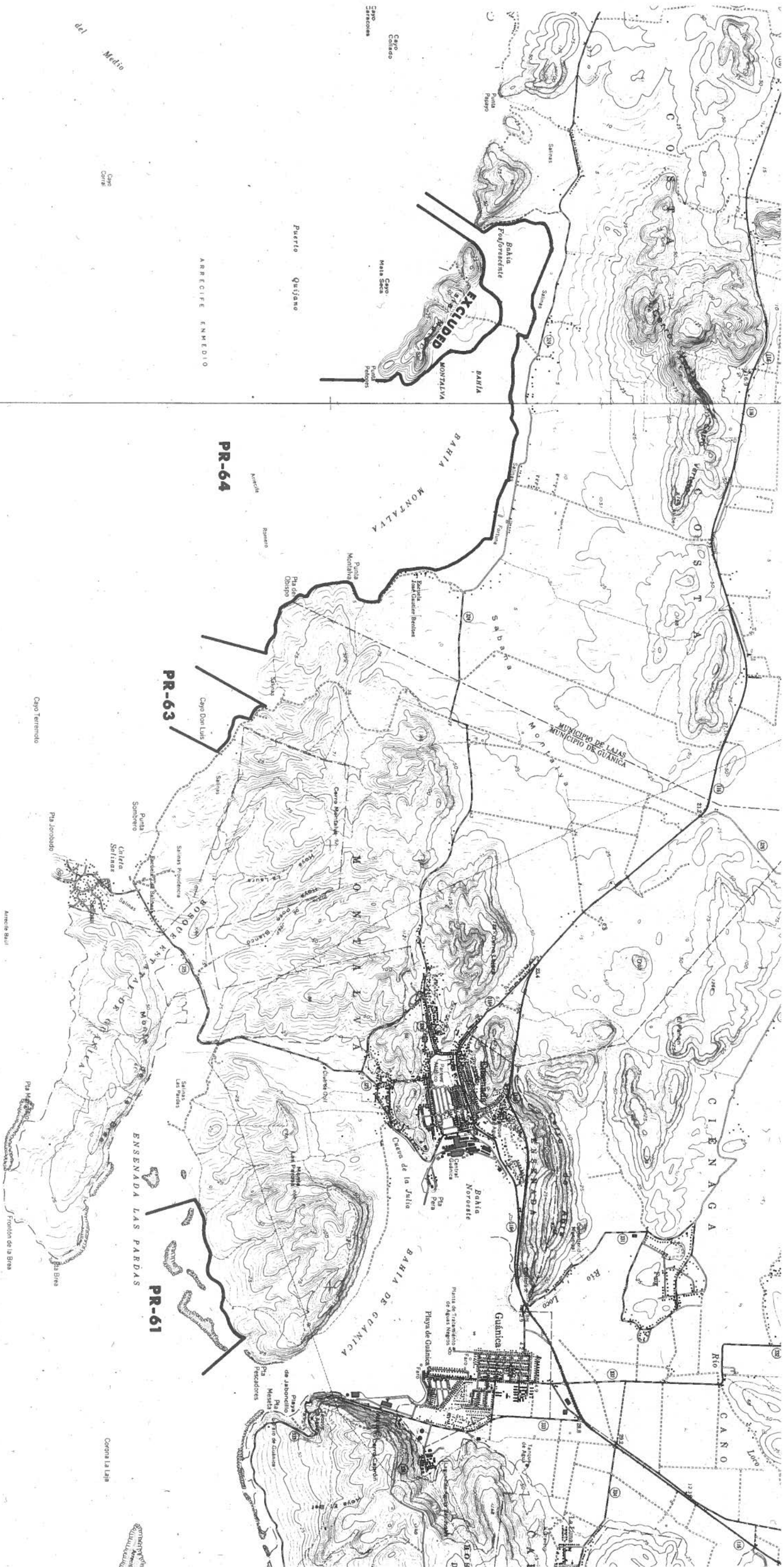
QUADRANGLE
PLAYA DE PONCE
PUERTO RICO



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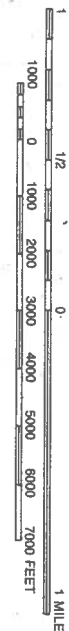
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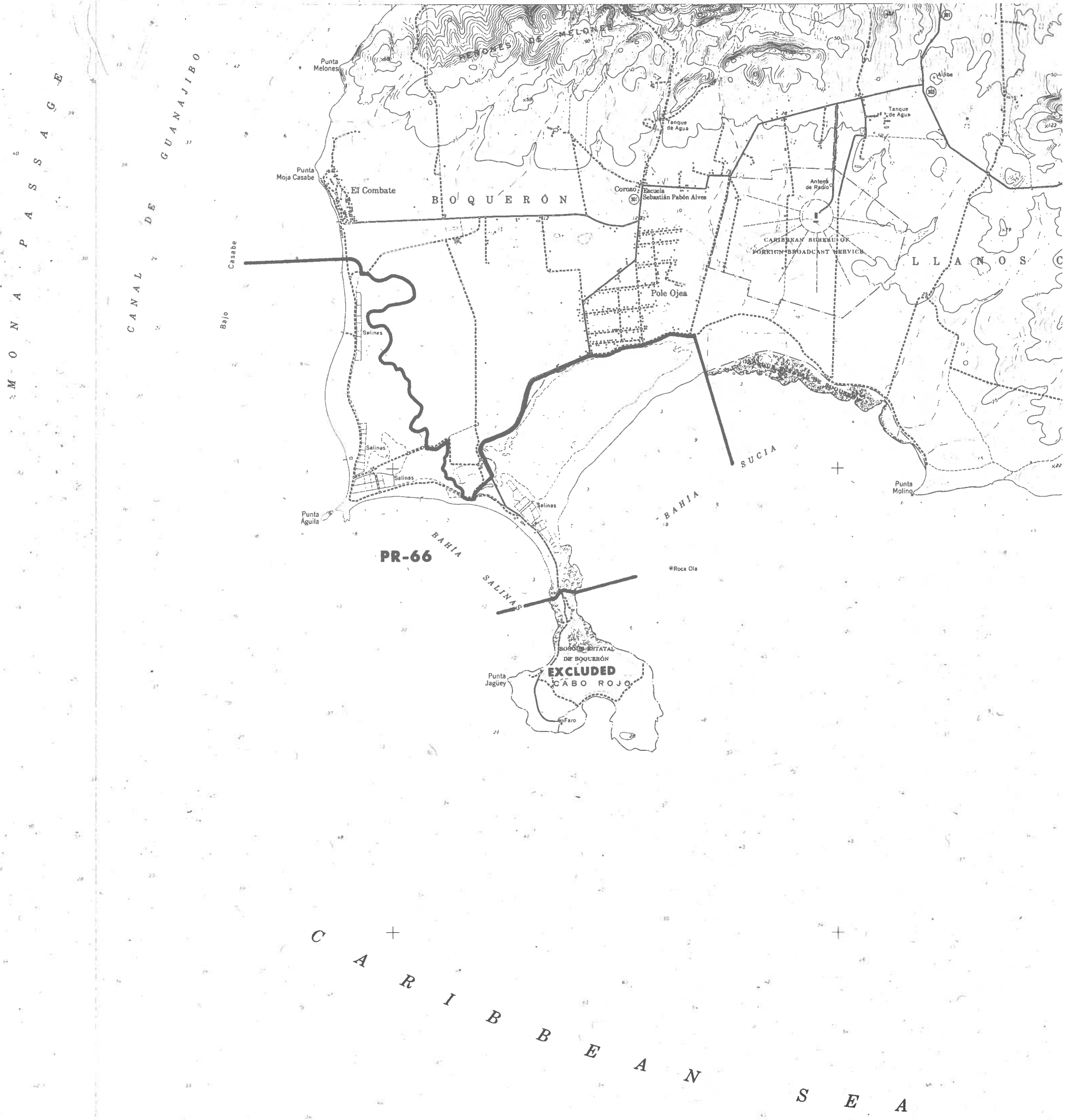
QUADRANGLE
GUANICA
PUERTO RICO



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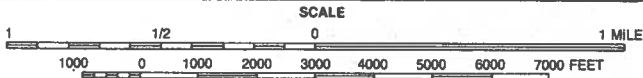


25



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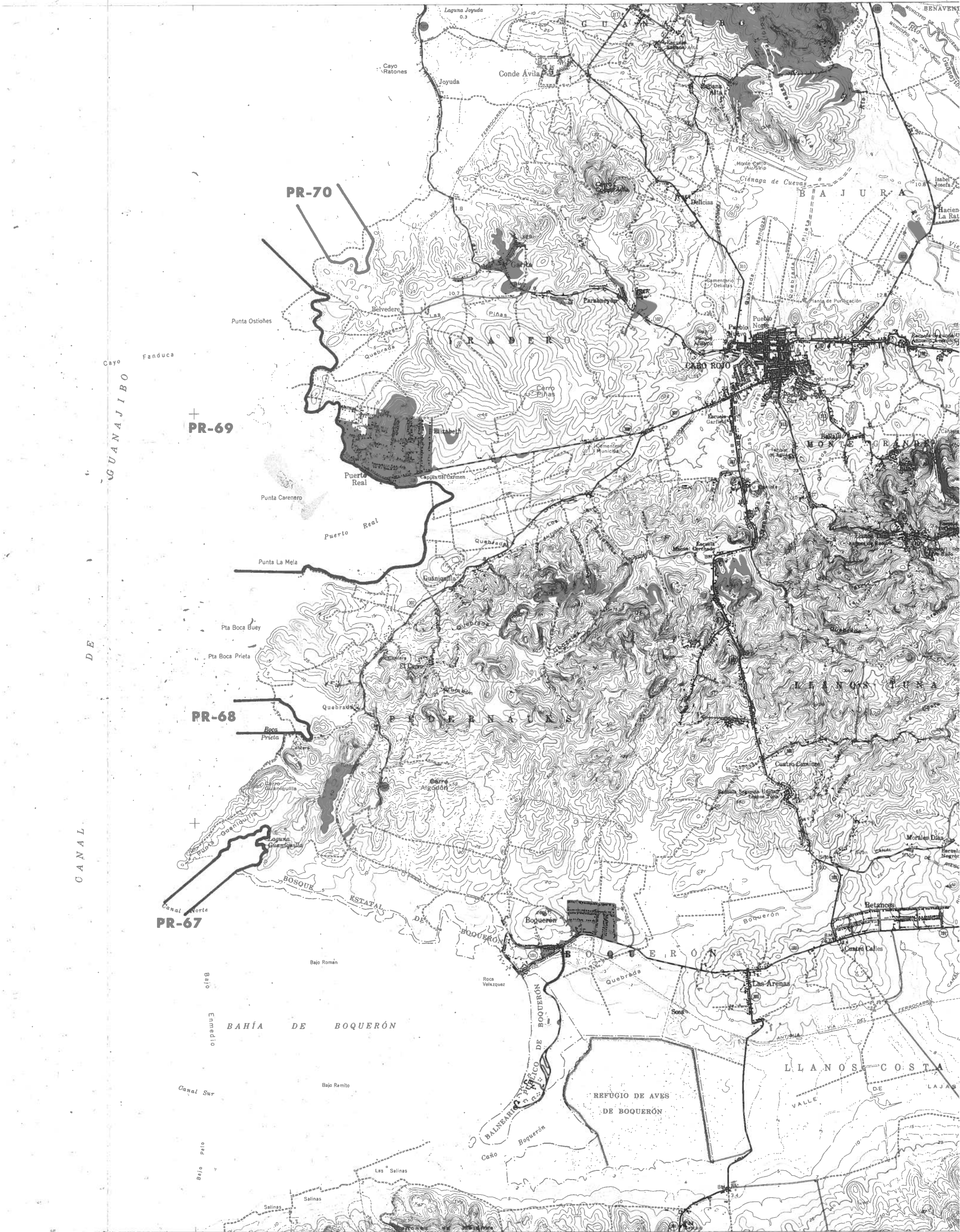
QUADRANGLE
CABO ROJO
PUERTO RICO



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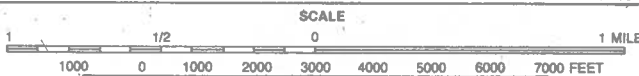


26



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QUADRANGLE
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PUERTO RICO

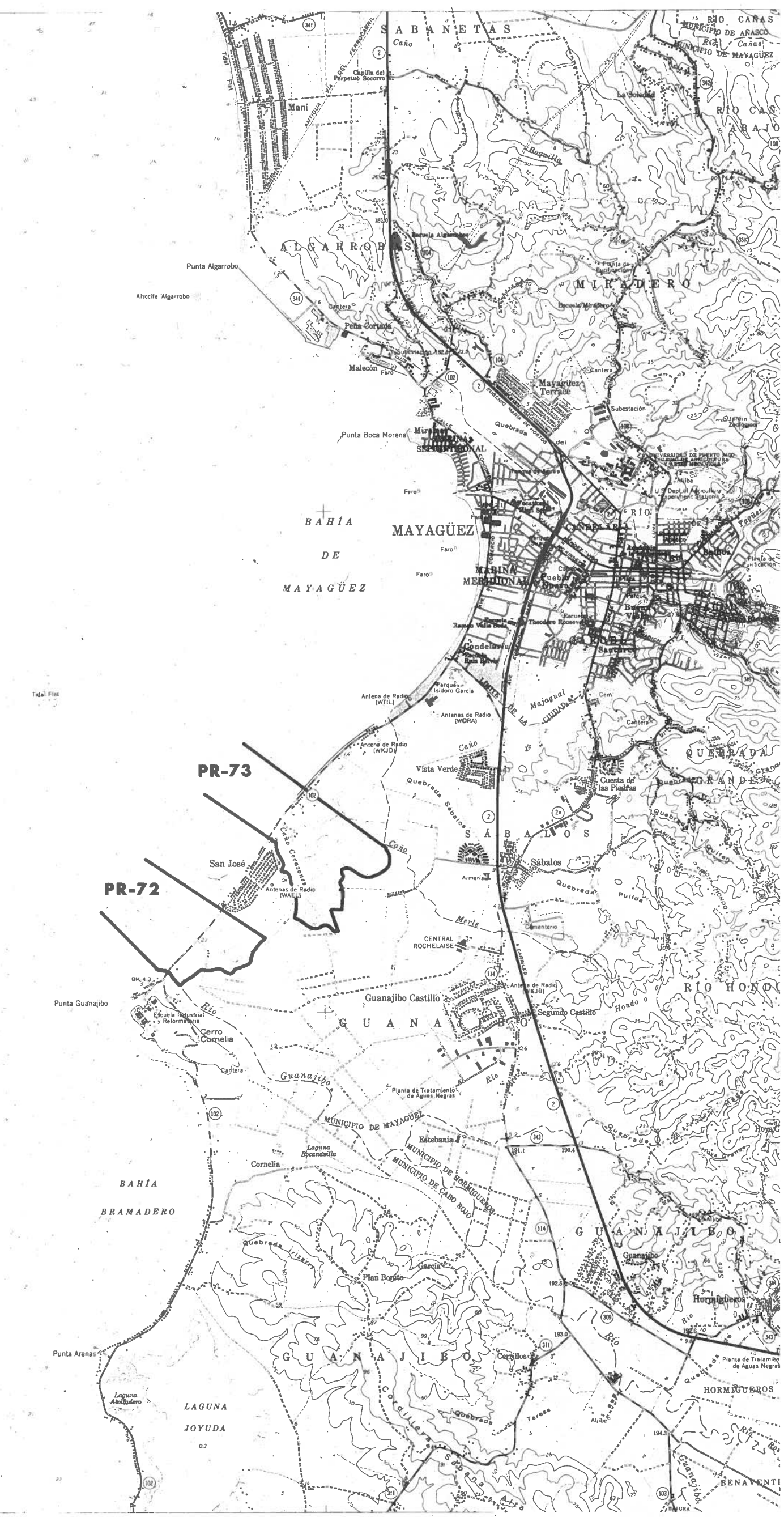


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Report to Congress on the Coastal Barrier Resources System

QUADRANGLE
MAYAGÜEZ
PUERTO RICO

SCALE
1 1/2 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

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PR-76



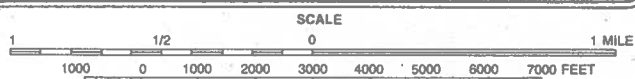
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28



QUADRANGLE
AGUADILLA
PUERTO RICO



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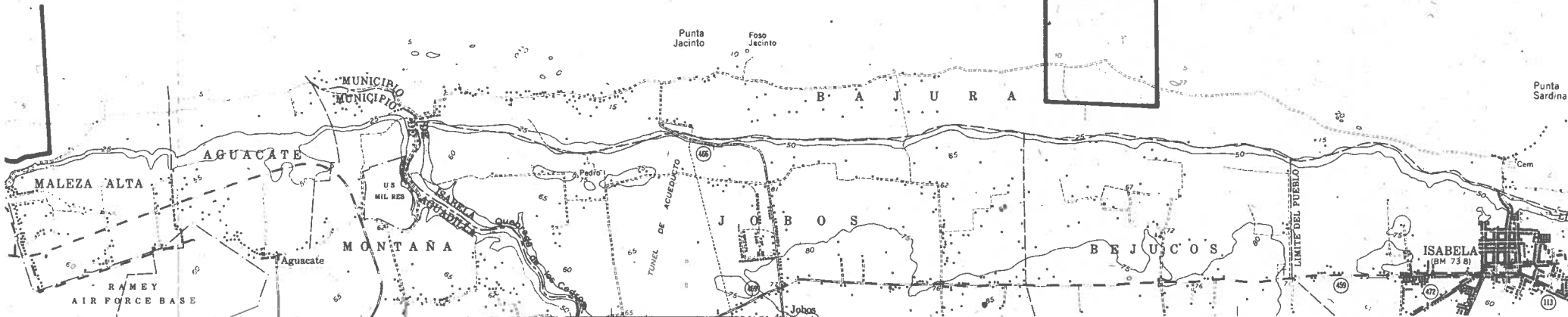
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PR-76

PR-77



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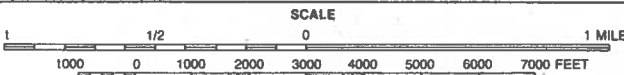


29



Report to Congress on the Coastal Barrier Resources System

QUADRANGLE
ISABELA
PUERTO RICO



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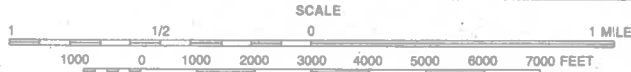
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30

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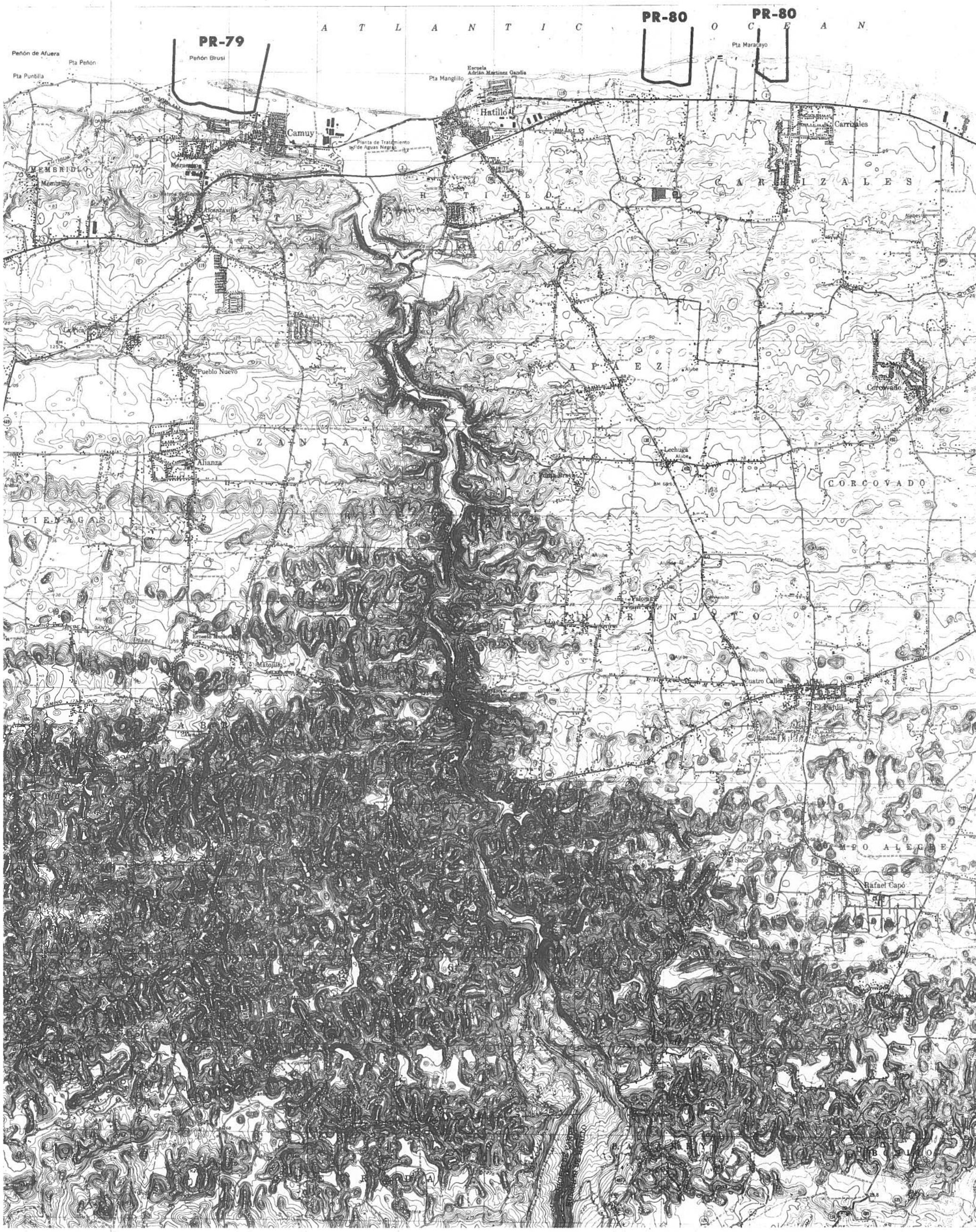
QUADRANGLE
QUEBRADILLAS
PUERTO RICO



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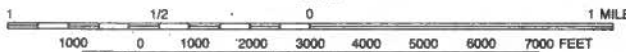


31

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QUADRANGLE
CAMUY
PUERTO RICO

SCALE



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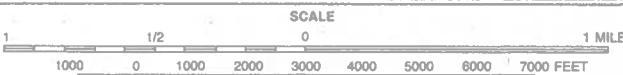


33



Report to Congress on the Coastal Barrier Resources System

QUADRANGLE
BARCELONETA
PUERTO RICO



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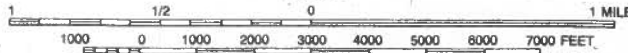


35

Report to Congress on the Coastal Barrier Resources System

QUADRANGLE
BAYAMON
PUERTO RICO

SCALE



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