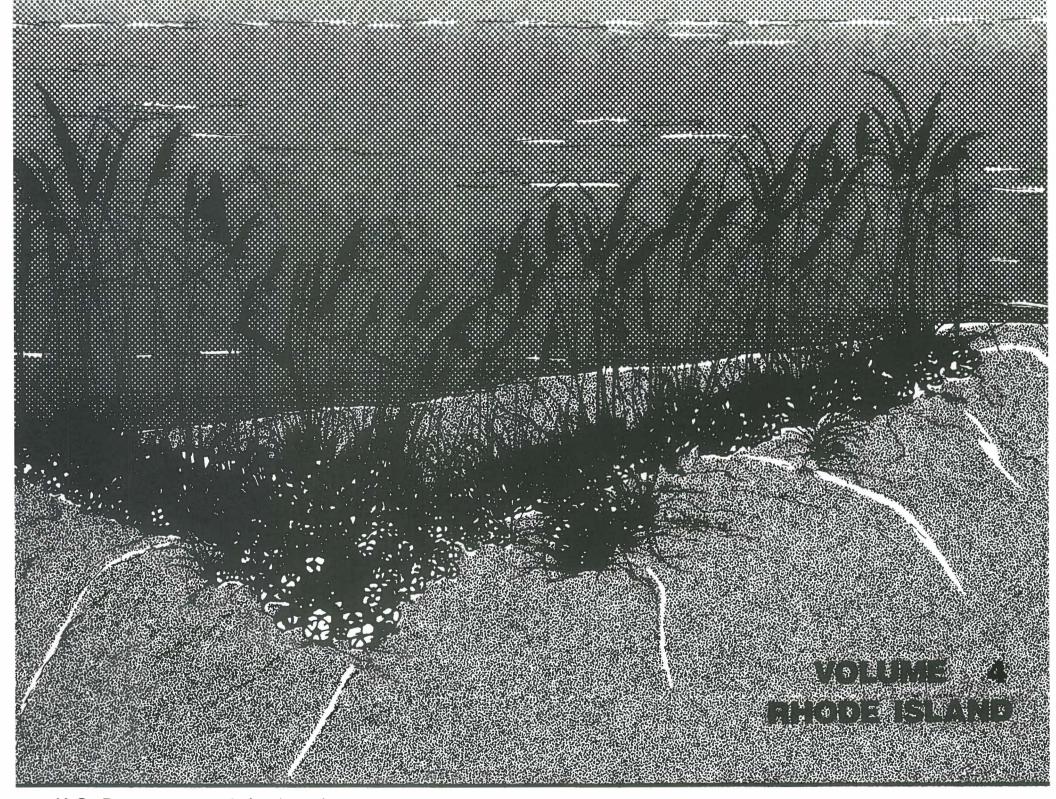
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REPORT TO CONGRESS: COASTAL BARRIER RESOURCES SYSTEM

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



U.S. Department of the Interior



REPORT TO CONGRESS: COASTAL BARRIER RESOURCES SYSTEM

VOLUME 4

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

RHODE ISLAND

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

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RHODE ISLAND

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 Rhode Island 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

- (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
- (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 Rhode Island includes delineations of the CBRS units designated by Congress in 1982 and delineations of proposed recommendations for additions and modifications to the CBRS that will be provided to Congress by the Department of the Interior following public review and comment.

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

Contained within the 1,028 square miles of Rhode Island is Narragansett Bay, a large bay and estuary that extends 28 miles inland in the eastern part of the State. This arm of the sea gives Rhode Island a much longer shoreline than one would expect for a State of its size. The bay has an extensive shoreline and includes several large islands of which Rhode Island, Conanicut Island, and Prudence Island are the largest. Block Island, some 10 miles south of the mainland in the Atlantic Ocean, is also part of the State. Most of the coastline consists of bay barriers, spits, and, at a few locations, rocky headlands. Within Narragansett Bay there are rocky shores, salt marshes, estuaries, and sand beaches.

After New Jersey, Rhode Island is the most densely populated State (921 persons per square mile) in the Nation. Even though the State's population density is high, most of its upland is rural and forested with a relatively sparse population except for the large urban area at the head of Narragansett Bay.

The State's natural resource base has changed substantially over the centuries. In earlier times, many of the State's forests were cleared for agriculture. During the 20th century, as Rhode Island became industrialized, many farms were abandoned and some have returned to forest. Wetland plant communities, rare in the State today, were once very common, especially along the coast. Now only 1.5 percent of the land area is classified as wetland. Significant amounts of wetland have been consumed by urban development. The most important natural resource in Rhode Island is Narragansett Bay with its extensive shoreline and its many coves and bays, tidal flats, and marshes. The habitats that Narragansett Bay provides for finfish. shellfish, and waterfowl are extremely important, yet many have been seriously degraded. Salt marshes of cordgrass can be found behind the coastal barriers and along Narragansett Bay. The dune strand, typical of southern New England, is dominated by beach grass, bayberry, beach plum, beach heather, and other coastal shrubs.

Rhode Island's natural resources support a small forestry industry for firewood, a significant fishing industry, recreational hunting and fishing, and some mining. Coastal industries include ship and boat building, tourism, recreation, and marine research. Marine manufacturing is also an important part of this industrial base. Ancient glaciation in the State provided extensive deposits of sand and gravel which today support the small mining industry. Much of the fill on which urban expansion was built, especially in wetlands, came from these glacial deposits. Glacial materials were also re-formed into the coastal barrier system that fringes the Atlantic shore. Block Island, south of the mainland, owes its origin to the glacial period, as do Martha's Vineyard and Nantucket Island further east. Block Island has eroding sand and gravel bluffs, as well as several sandy beaches which are the results of previous erosion. Though the uplands on Block Island were farmed, traces of natural shrub and heathland vegetation, and small woodlands of black oak and pitch pine still exist.

COASTAL RESOURCE MANAGEMENT

Rhode Island Coastal Resource Management

Until recent years, industrialization and development took precedence over conservation of coastal resources (particularly salt marshes and beaches). Even so, public use of the coastal resources has long been a tradition among Rhode Islanders. The original charter granted by King Charles II on July 8, 1633, gave all subjects in Rhode Island Colony the free right to fish along the coast. The Rhode Island Constitution of 1842 guaranteed this right, and it was further strengthened in 1970 when Section 17 of the Constitution was amended. The State has established a number of parks along the coast, some of them on prime coastal barrier locations. One in particular was created by the Governor on Quonochontaug Beach (opposite Ninigret Pond) after the hurricanes of 1938 and 1954 destroyed the houses there.

In 1965, two laws were passed by the State legislature to protect salt marshes. In 1971, the State's most effective coastal law, the <u>Coastal Resources Management Council Act</u>, was passed. The requirements of the Federal Coastal Zone Management Act (PL

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92-583) were incorporated into this 1971 act (G.L.R.I. Title 47, Chapter 23, as amended, Sections 1-16). The State's act set up a Council to administer the funds received through Section 306 of the Federal Coastal Zone Management Act. This Council is directly responsible to the Office of the Governor and has all the authorities for the management, planning, and operational functions of the Coastal Zone Management Act. The Council, appointed by the Governor, Lieutenant Governor, and Speaker of the House, is made up of 17 members, including at least four officials from communities of various sizes along the coast.

Rhode Island's coastal region is defined as including all lands within approximately 1 mile of tidal waters (the inner boundary of the census tract bisected by a line drawn 1 mile inland from tidal waters). Several towns and cities, therefore, fall entirely in this zone. For permitting review, all coastal towns fall within the boundary.

The Council has direct authority over the entire shoreline and those activities that will significantly affect the shore and tidal waters. It has direct permitting authority over all territorial sea, coastal wetlands, physiographic features, and all directly associated areas contiguous to, and necessary to preserve the integrity of, such areas and features. It also has direct permitting authority over a number of specific activities wherever they occur in the State when the Council finds a reasonable probability that a proposal will:

- (1) conflict with a Council management plan or program,
- (2) significantly damage the environment of the coastal region,
- (3) make any area unsuitable for any uses or activities to which it is allocated by a Council plan or program.

All State agencies are required to cooperate and act consistently with the Council's plans and programs for the coastal region. In addition, the Council's plans for the coastal region are an elaboration of, and are fully consistent with, the State Guide Plan. New comprehensive municipal plans must conform with the State Guide Plan.

The Council has a detailed permit review process and is the last step for an in-state permitting procedure. It acts formally on an application only when all local and other State approvals have been obtained. Persons proposing alterations along the shoreline are informed by Council staff or by local authorities when a Council permit is required. Relevant proposed Federal activities are channeled to the Council for review by staff at the Statewide Planning Program. Applications for any activities that may come under Council jurisdiction are forwarded by other State agencies to the Council for review.

The Council's regulations and actions have been very effective in protecting the coastal zone, especially coastal barriers. Council regulations and policies have prevented both damage to coastal wetlands and new residential development on previously undeveloped barrier beaches. New structures on developed

barrier beaches have only been permitted when stringent criteria were met. There has been no new building on sand dunes. The activities most frequently denied continue to be requests to build individual homes.

The following State regulations are in place and fall within the jurisdiction of the Council:

Activities in Tidal Waters and Coastal Ponds, adopted Sept. 1977. Sand Dunes, 1974, amended 1975. Beaches and Barrier Beaches, 1974, amended 1975. Cliffs, Ledges, Bluffs, Sept. 1977. Coastal Wetlands, 1975. Flood Hazard Areas, Sept. 1977. Erosion Control Measures, Sept. 1977. Aquaculture, Sept. 1977. Areas in or Contiguous to Public Beaches and Coastal Parks and Historic Resources, Sept. 1977. Areas in or Contiguous to Coastal Conservation, Fisheries or Wildlife Management Areas, Public Rights of Way and Public View Sites, Sept. 1977.

Private Sector Initiatives

Harbor Watch is a conservation group that monitors coastal issues in Rhode Island. Before CBRA was enacted, the group and the Town of Little Compton had not considered CBRS unit Sakonnet Harbor Beach as a coastal barrier. Since then, the Town passed an amendment to preserve the barrier, and the Town prohibited construction on a 5,200 square foot lot slated for intensive development. Title to the site passed to the Town during the week of June 22, 1984 (\$23,000 was raised by local residents to protect the barrier).

EXISTING CBRS UNITS

A brief description of each existing Coastal Barrier Resources System unit in Rhode Island follows. Each unit is identified by its number, name, and the county in which it is located.

DOl-Little Compton Ponds (Newport). This unit consists of a cape and four bay barriers fronting ponds of various sizes along the south shore of Little Compton (Rhode Island) facing the Atlantic Ocean. The cape is Sakonnet Point which extends into the Atlantic on the eastern shore of the Sakonnet River. The barriers are quite low and consist primarily of cobbles and gravel. A few have sand dunes, but most are without any substantial dune formations. From east to west these barriers are South Shore Beach on Quicksand Pond, Briggs Beach and Briggs Marsh, Long Pond, and Round Pond.

<u>DO2-Fogland Marsh (Newport)</u>. There are two subunits in Fogland Marsh. Both are on the Sakonnet River, one on the north and one on the south side of High Hill Point near Tiverton Four Corners. The northern subunit, Fogland Point, in the Town of Tiverton, is a barrier spit with an internal wetland. The southern subunit, mostly in the Town of Little Compton, is a marshland and bay barrier at the entrance to Nonquit Pond. The barrier and marsh connect High Hill Point and Wind Hill.

DO2B-Prudence Island Complex (Newport). This unit consists of a number of barriers including spits and bay barriers in Narragansett Bay near Bristol. Two subunits are on the northern part of Prudence Island. One consists of a small cape protecting an interior pond called Sheep Pen Swamp opposite Patience Island in Sheep Pen Cove. The second is part of a tombolo system connecting sections of Prudence Island and contains beaches protecting Jenny Pond and Nag Pond and their associated marshes. The other subunits are on Hog Island immediately south of Bristol. The one to the west consists of a spit and a smaller marsh island, and the one to the south is a marshland area behind a narrow beach and spit system just east of Southwest Point. The Marsh Point subunit is a small cape on the

CBRS UNITS IN RHODE ISLAND ESTABLISHED BY CONGRESS, 1982

Unit Name	Unit ID Code	County	Shoreline Length (miles)	Area (acres)
Little Compton				
Ponds	D01	Newport	2.9	1,358.4
Fogland Marsh	D02	Newport	0.9	194.5
Prudence Island	502			20
Complex	DO2B	Newport	3.6	300.5
•		Kent		
W. Narragansett				
Bay Complex	D02C	Washington	0.7	21.1
Card Ponds	D03	Washington	0.7	128.2
Green Hill Beach	D04	Washington	0.8	250.2
East Beach	D05	Washington	0.5	402.4
Quonochontaug				
Beach	D06	Washington	1.8	414.2
Maschaug Ponds	D07	Washington	1.1	92.9
Napatree	D08	Washington	1.3	1,194.0
Block Island	D09	Washington	3.4	434.9
Totals:			17.7	4,791.3

north side of the mouth of the Potowomut River. Narrow beaches protect marshes and a small pond.

DO2C-West Narragansett Bay Complex (Washington). This unit contains two capes on the western shore of West Narragansett Bay Passage in North Kingstown. The southern cape is called Casey Point and protects a body of open water behind narrow beaches. The northern cape is Greene Point, which contains beaches, marshes, and some open water.

DO3-Card Ponds (Washington). This unit is composed of a bay barrier known as Browning Beach on the east side of a narrow, temporary tidal passage and Moonstone Beach on the west side of the passage. The barrier protects the open water and marshes of Card Ponds. It faces the Atlantic Ocean and is near the village of Matunuck. The barrier has a single dune ridge 10+ feet high.

DO4-Green Hill Beach (Washington). This wide, low bay barrier across Green Hill pond has been recently overwashed. It is located between developed uplands (Green Hill on the east and Charlestown Beach on the west) in the Town of South Kingstown. Dunes are low and scattered over the beach as a result of overwashing during past storms. Washover deposits are found in Green Hill Pond. The unit also includes small islands and spits within the pond: Horseneck Point, Goose Island, Jacob Island, and Hog Hill Island, plus two small spits in Flat Meadow Cove.

D05-East Beach (Washington). This unit consists of two subunits on the eastern end of East Beach, a substantial bay barrier consisting of a dune ridge, back-barrier flats, and marshes that protect Ninigret Pond. The unit fronts the Atlantic Ocean and is in Charlestown. A dredged and jettied inlet bisects the barrier at the site of an old natural inlet opposite the U.S. Naval Reservation. The western subunit contains beach, dunes, marshes, and a portion of Governors Island. The eastern subunit includes beach, dunes, and a series of marshes: Marshneck Point, Ward Island, and Heather Island behind the existing inlet into Ninigret Pond.

DO6-Quonochontaug Beach (Washington). large bay barrier connecting Weekapaug Point and Quonochontaug Point protects Quonochontaug Pond. It is located mostly in the Town of Westerly, but a small portion is in Charlestown. The barrier consists of low improved road running along the barrier to a dredged opening called Quonochontaug Breachway, the site of a former natural inlet. The western part of the barrier is called Weekapaug Beach and the eastern part in Charlestown is called Quonochontaug Beach. barrier, along with others on the south shore of Rhode Island, was severely overwashed during the 1938 hurricane and major damage to existing structures occurred. Hurricanes in the 1950's also passed over these barriers. Today, natural dune vegetation and grasslands grow where houses once stood.

<u>DO7-Maschaug Ponds (Washington)</u>. This bay barrier, with a single dune ridge 10 feet high, protects two ponds: Maschaug Pond to

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the west and Little Maschaug Pond to the east. It is on the Atlantic shore between the Villages of Misquamicut to the east and Watch Hill to the west. The unit is just west of Misquamicut State Beach.

DO8-Napatree (Washington). This unit contains two sections: Napatree Island and Napatree Beach at the very southwestern corner of Rhode Island, just west of Watch Hill. Napatree Island, also known as Sandy Point, lies between Napatree Beach and Stonington, Connecticut, and protects Little Narragansett Bay. The southeastern end of Napatree Island has shown substantial migration to the northeast during the past 20 years. In effect, it appears to be rotating northeastward with its northwestern end acting as a pivot. Napatree Beach is a tombolo that also protects Little Narragansett Bay. The tombolo is attached at its eastern end to Watch Hill Point.

DO9-Block Island (Washington). This unit consists of three subunits on the north and northwest coasts of Block Island. The unit protects Great Salt Pond, Sachem Pond, and Middle Pond. The barriers front on Block Island Sound. The northern part of the unit is a cape called Beach Plum Neck. This area consists of a vegetated dune field with elevations between 10 and 20 feet. southwestern part of the unit, Gunners Hill, consists of a spit with dunes up to 20 feet and salt marshes behind. This spit is separated from Harbor Neck to the south by a jettied inlet into Great Salt Pond. area has been called Rhode Island's most magnificent natural area because of its significant ecological, geological, historical resources. Rare and endangered plants and birds can be found here, including the peregrine falcon and osprey. It is regarded as one of the three most unique areas in North America for birdwatching during the fall migration.

PROPOSED ADDITIONS AND MODIFICATIONS

This section identified proposed recommendations for additions to and deletions from 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 recommendations to the Congress after a 90-day public comment period. These 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 State of Rhode Island has reviewed these documents and supports the addition of all the units in the inventory. The State has also requested that another area, McCurry Point (RI-02A), be added to the CBRS.

The Department received a number of other comments concerning Rhode Island. The majority of these were in favor of the CBRS expansion.

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The Department of the Interior proposes to recommend that all unprotected, undeveloped coastal barriers and associated aquatic habitat be added to the Coastal Barrier Resources System. It concurs with the State recommendation for the addition of McCurry Point (RI-02A). Because the north segment of Fogland Marsh (DO2) and the Sheep Pen Swamp segment of Prudence Island Complex (DO2B) are protected by Rhode Island, the Department recommends deletion of these from the CBRS.

The Department received a large number of comments on proposed unit RI-05, Easton Beach, including a petition with 313 signatures supporting inclusion of this area. However, the area is also protected by the State and, therefore, is not recommended for addition.

The Town of Little Compton and Harbor Watch, Inc., requested modification of the western boundary of CBRS unit DO1, Little Compton Ponds. The State endorsed this request. The Department proposes no recommendation to modify this boundary.

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 RHODE ISLAND

Unit ID Code ^a	Unit Name ^b	County	Congress. Dist.	Shoreline Length (miles)	Area (acres) ^e	Proposed Recommendation
D01	Little Compton Ponds	Newport	1	3.05	1,370	Add new area to existing CBRS unit with exception of locally protected Tunipus Pond segment
RI-01	Brown Point	Newport	1	0.51	48	Add to CBRS; no change from inventory
D02	Fogland Marsh	Newport	1	0.40	104	South segment: add wetlands to existing CBRS unit. North segment State protected; delete from existing CBRS unit
RI-02	Sapowet Point	Newport	1	1.15	102	Partially State protected; add unprotected area to CBRS
RI-02A	McCurry Point	Newport	1	0.37	15	Add to CBRS at State's request
RI-03	Sandy Point	Newport	1	janan		Locally protected no further consideration
RI-04	Sachuest Point	Newport	1		-	Federally pro- tected (FWS); no further consideration
RI-05	Easton Beach	Newport	1			State protected; no further consideration
RI-06	Almy Pond	Newport	1	0.22	57	Add to CBRS; no change from inventory

(continued)

Unit ID Code ^a	Unit Name ^b	County	Congress. Dist.	Shoreline Length (miles) ^d	Area (acres) ^e	Proposed Recommendation f
RI-07	Hazards Beach	Newport	1	0.22	41	Add to CBRS; no change from inventory
D02B	Prudence Island Complex	Newport Kent Bristol Washington	2	5.82	869	Providence Point and Gull Point State protected; no further consideration. Sheep Pen Swamp segment of existing CBRS unit State protected; delete from CBRS. Add balance of proposed inventory area to existing CBRS unit
D02C	West Narragansett Bay Complex	Washington	2	1.50	145	At State's request expand Bissel Cove segment and add to existing CBRS unit
RI-08	Fox Hill Marsh	Newport	2	0.25	72	Mackerel Cove Beach locally protected; no further con- sideration. Add balance of inventory area to CBRS
RI-09	Bonnet Shores Beach	Washington	2	0.36	119	Add to CBRS; no change from inventory
RI-10	Narragansett Beach	Washington	2	0.40	396	Add northern segment to CBRS. Southern segment locally protected; no further consideration
RI-11	Seaweed Beach	Washington	2	0.24	22	Add to CBRS; no change from inventory
RI-12	Sand Hill Cove	Washington	2	_	_	State protected; no further consideration
RI-13	East Matunuck	Washington	2	_		State protected; no further consideration
D03	Card Ponds	Washington	2	0.67	128	No change to existing CBRS unit. Segment added in inventory Federally protected (FWS); no further consideration
D04	Green Hill Beach	Washington	2	0.78	515	Add new area to existing CBRS unit; no change from inventory

(continued)

Unit ID Code ^a	Unit Name ^b	County	Congress. Dist.	Shoreline Length (miles)	Area (acres) ^e	Proposed f Recommendation
D05	East Beach	Washington	2	1.40	1,033	Add wetlands and part of Charles-town Beach to existing CBRS unit. Part of Charlestown Beach developed and East Beach Federally protected (FWS); no further consideration
D06	Quonochontaug Beach	Washington	2	2.11	1,154	Add new area to existing CBRS unit; no change from inventory
RI-14	Misquamicut Beach	Washington	2	_	_	State protected; no further consideration
D07	Maschaug Ponds	Washington	2	1.08	93	No change to existing CBRS unit
D08	Napatree	Washington	2	1.28	1,194	No change to existing CBRS unit Watch Hill Cove locally protected; no further consideration
D09	Block Island	Washington	2	3.47	991	Add wetlands to existing CBRS unit Block Island Light house Federally protected, Block Island State Beach State protected; no further consideration
	Total - CBRS as	Recommended		25.28	8,070	
	Existing CBRS			17.7	4,791	
	Net Change in CE	RRS		+7.58	+3,279	

^aUNIT ID CODE - State initials (RI) plus a number identify a proposed new unit. An existing unit is identified by the legal code letter (D) and number established by Congress in 1982.

^bUNIT NAME - For proposed new units, this is a provisional name based on a prominent local feature. For existing CBRS units, this is the legal name.

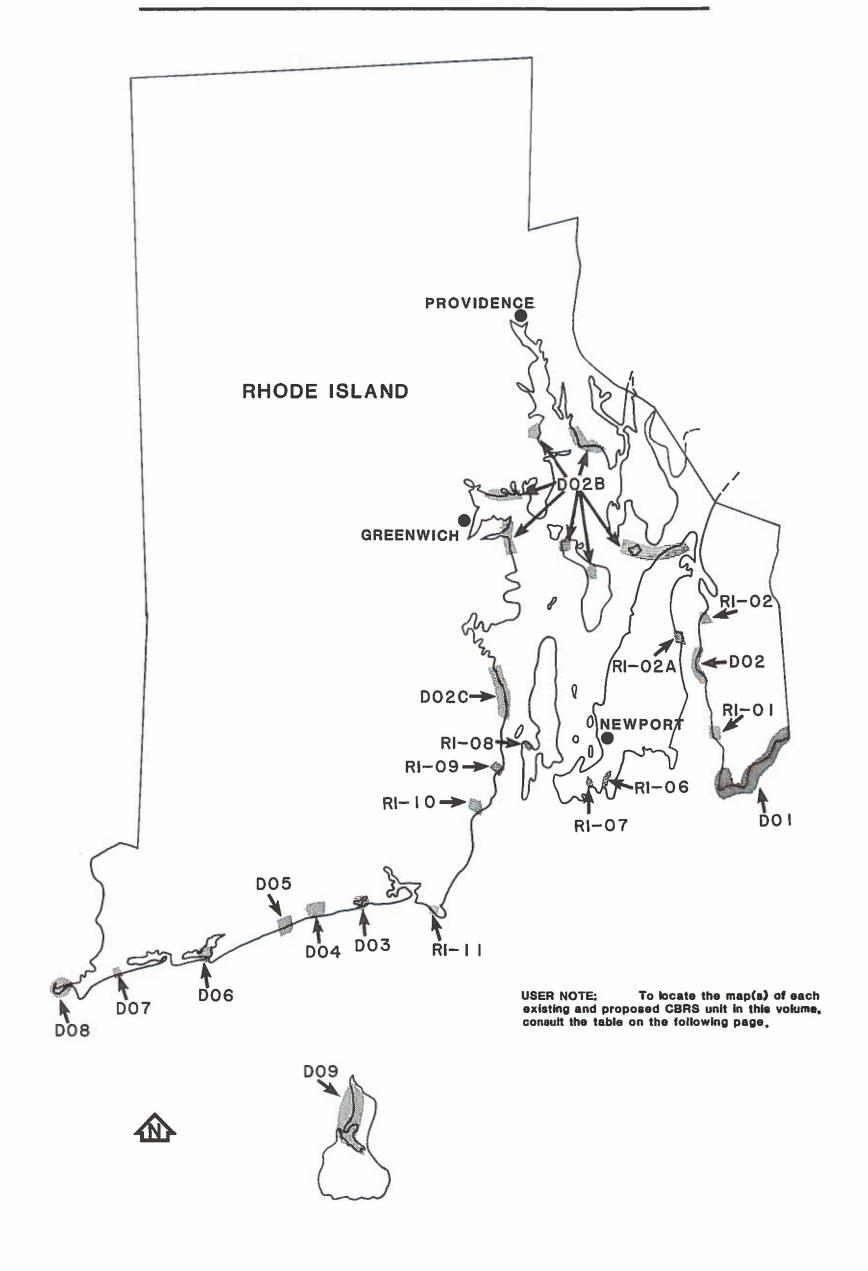
 $^{^{\}rm C}{\rm CONGRESSIONAL\ DISTRICT\ -\ U.S.\ Congressional\ District\ in\ which\ unit\ is\ located.}$

 $^{^{\}rm d}{\rm SHORELINE}$ LENGTH - For existing units with additions or deletions, this length is for the entire unit, as modified.

 $^{^{\}mathrm{e}}$ AREA - For existing units with additions or deletions, this area is for the entire unit, as modified.

fPROPOSED 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 EXISTING AND PROPOSED CBRS UNITS IN RHODE ISLAND



EXISTING AND PROPOSED CBRS UNITS AND THEIR LOCATION IN THIS VOLUME

Unit ID Code	Unit Name	USGS Topographic Map or Map Composite	Page
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D01	Little Compton Ponds	Sakonnet Point	11
	•	Tiverton	12
RI-01	Brown Point	Tiverton	12
D02	Fogland Marsh	Tiverton	12
D02B	Prudence Island Complex	Bristol	14
	·	Fall River	15
		East Greenwich	16
002C	West Narragansett Bay Complex	Wickford	17
RI-02	Sapowet Point	Tiverton	12
RI-02A	McCurry Point	Tiverton	12
003	Card Ponds	Kingston	19
004	Green Hill Beach	Kingston	19
005	East Beach	Quonochontaug	20
006	Quonochontaug Beach	Quonochontaug	20
		Watch Hill	21
RI-06	Almy Pond	Newport	13
007	Maschaug Ponds	Watch Hill	21
RI-07	Hazards Beach	Newport	13
008	Napatree	Watch Hill	21
RI-08	Fox Hill Marsh	Narragansett Pier	18
009	Block Island	Block Island	22
RI-09	Bonnet Shores Beach	Narragansett Pier	18
RI-10	Narragansett Beach	Narragansett Pier	18
RI-11	Seaweed Beach	Narragansett Pier	18

MAP KEY

	Existing CBRS units
	Proposed additions to or deletions from CBRS
ADD	Area recommended for addition to a CBRS unit
DELETE	Area recommended for deletion from the CBRS
EXCLUDED	Area excluded from an existing or proposed CBRS unit because it is developed or it is otherwise protected

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Report to Congress on the Coastal Barrier Resources System

QUADRANGLE

SAKONNET POINT

RHODE ISLAND

 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.

Base Map is the U.S. Geological Survey 1:24,000 scale quadrangle.

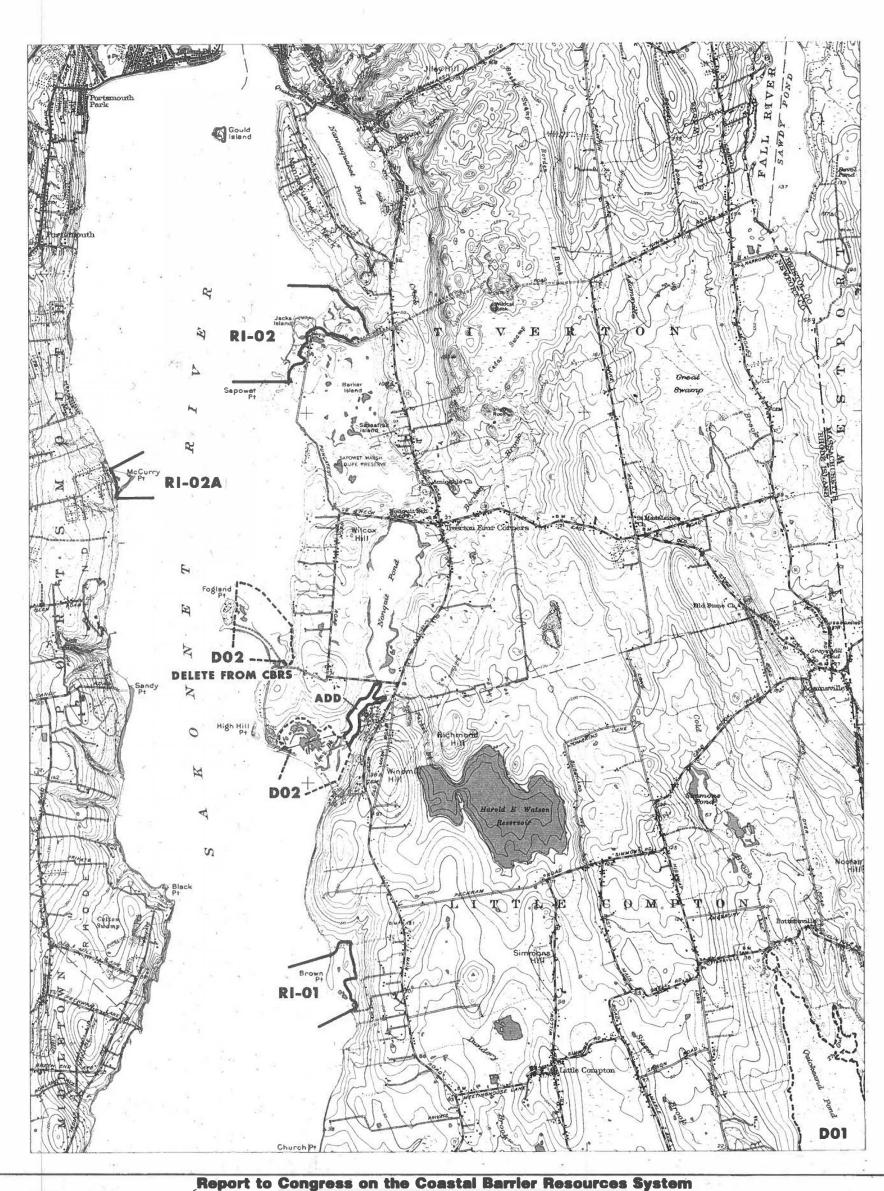
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UNITED STATES

DEPARTMENT OF THE INTERIOR DONALD P. HODEL, SECRETARY

North





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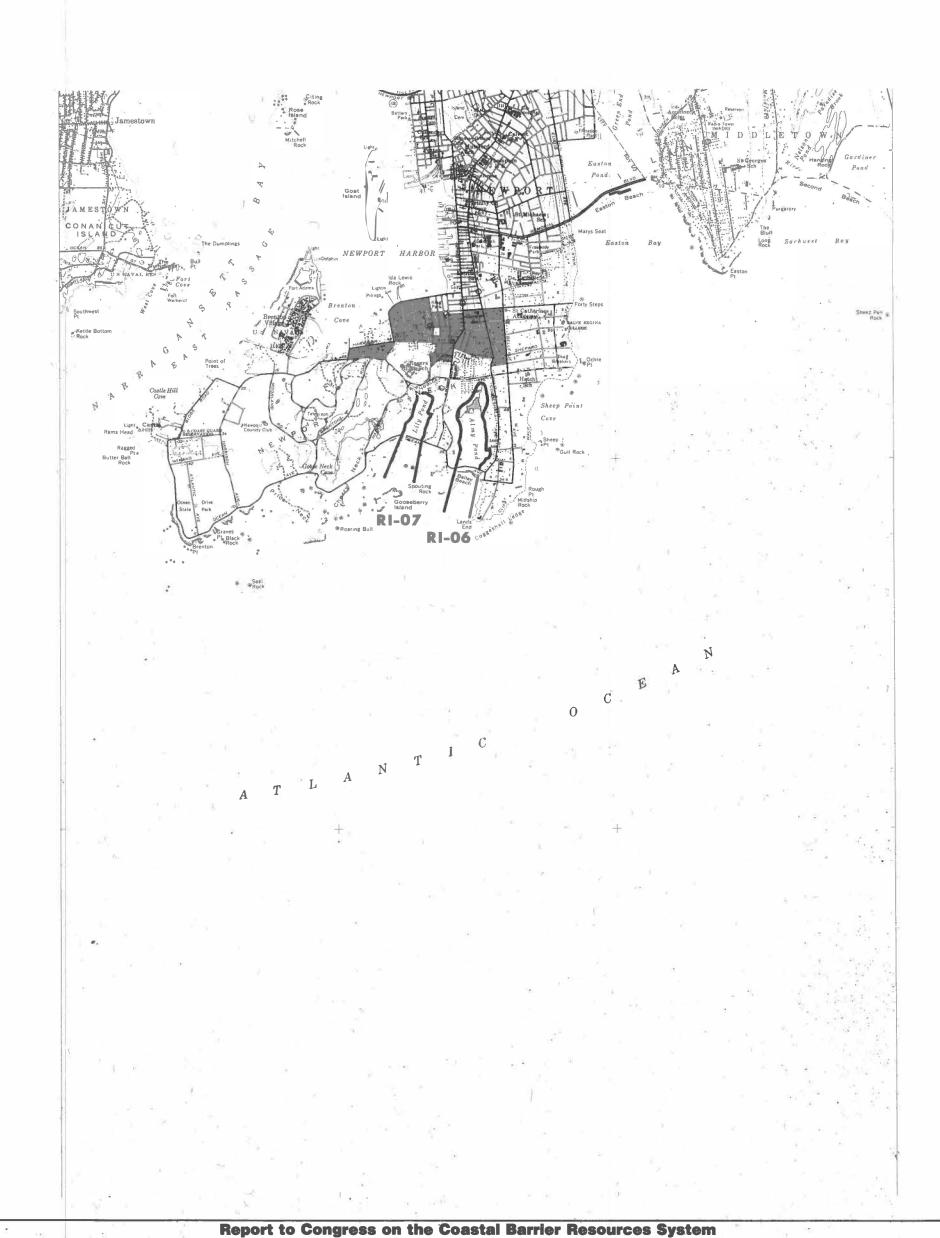
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QUAD RANGLE

Solid lines depict proposed recommendations for additions or deletions to the Coastal Barrier Resources System. (Section 10 of P.L. 97 - 348.)

Oash lines depict approximate boundaries of existing units in the Coastal Barrier Resources System, for reference purposes only.

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QUADRANGLE NEWPORT RHODE ISLAND

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Solid lines depict proposed recommendations for additions or deletions to the Coastal Barrier Resources System. (Section 10 of P.L. 97-348.)

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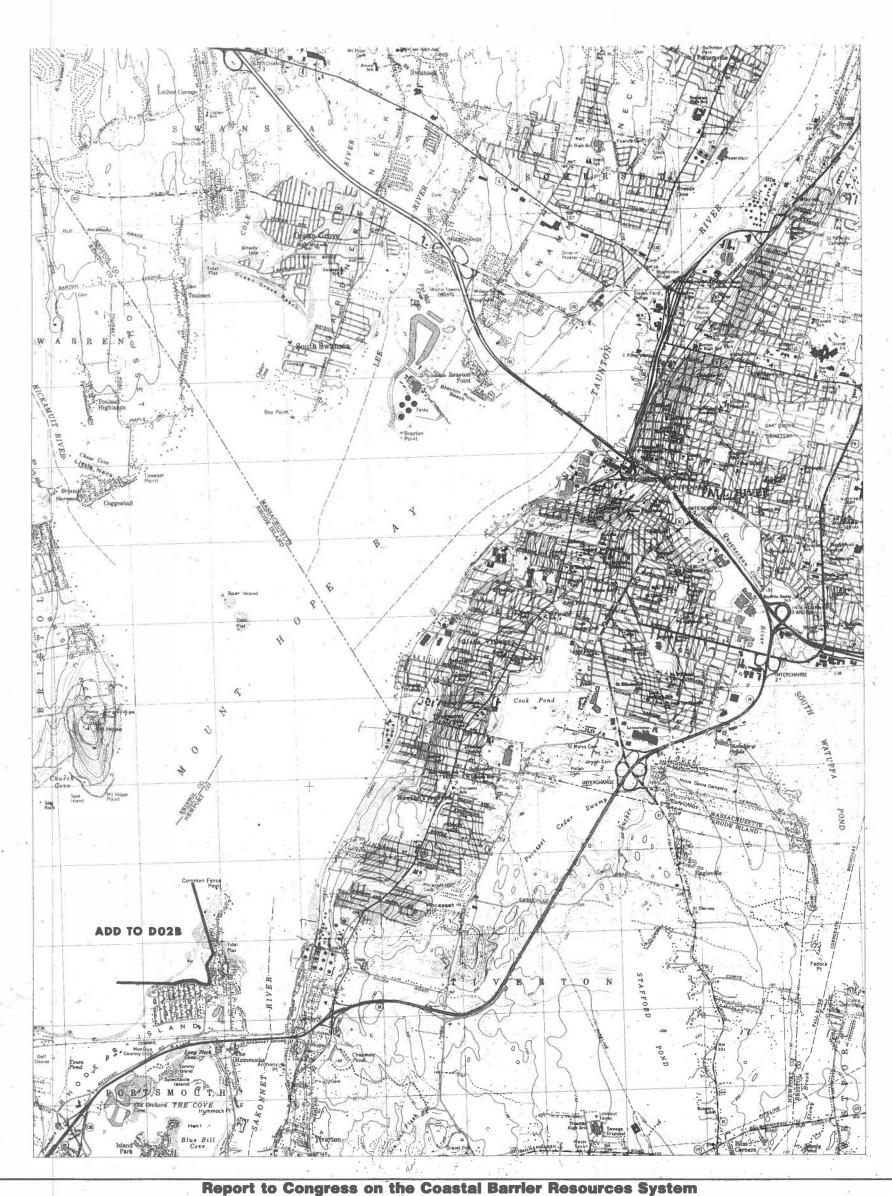
QUADRANGLE BRISTOL RHODE ISLAND

| 1/2 | SCALE | 1 MILE | 1 000 | 0 1 000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | FEET | 1 | 5 | 0 | 1 | KILOMETER |

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OR

North

QUADRANGLE

FALL RIVER

RHODE ISLAND

1 1/2 0 1 MILE 1 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET 1 5 0 1 KILOMETER 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.

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Washington, D.C. 20240

Base Map is the U.S. Geological Survey 1:24,000 scale quadrangle.



Report to Congress on the Coastal Barrier Resources System QUADRANGLE

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



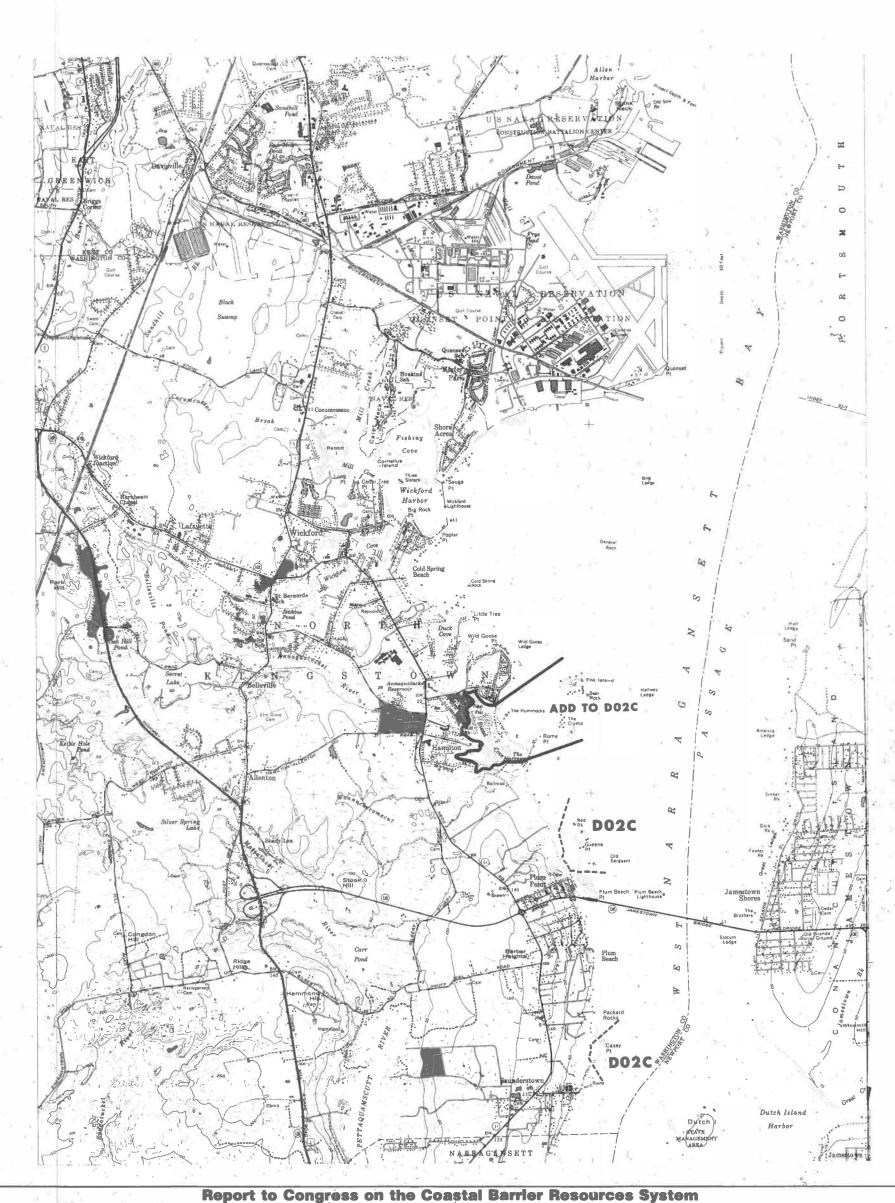
North

EAST GREENWICH RHODE ISLAND

1 MILE 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET 1 5 0 1 KILOMETER

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.

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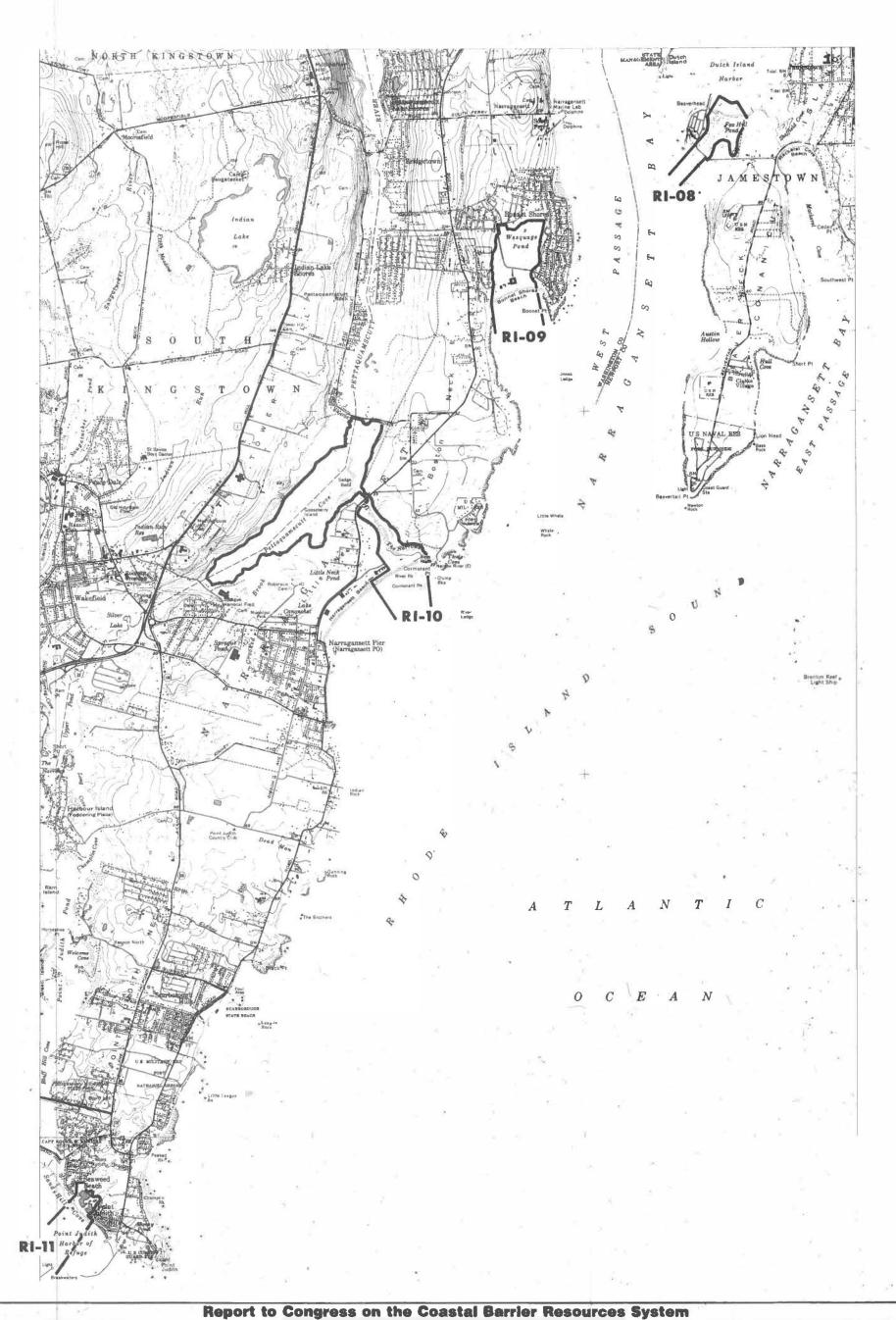
WICKFORD RHODE ISLAND

SCALE 1000 2000 3000 4000 5000 6000 7000 FEET
5 0 1 KILOMETER

QUADRANGLE

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QUADRANGLE NARRAGANSETT PIER

RHODE ISLAND

SCALE

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEEY

1 5 0 1 KILOMETER

Solid lines depict proposed recommendations for additions or deletions to the Coastal Barrier Resources System. (Section 10 of P.L. 97 - 348.)

Clash lines depict approximate boundaries of existing units in the

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QUADRANGLE

KINGSTON

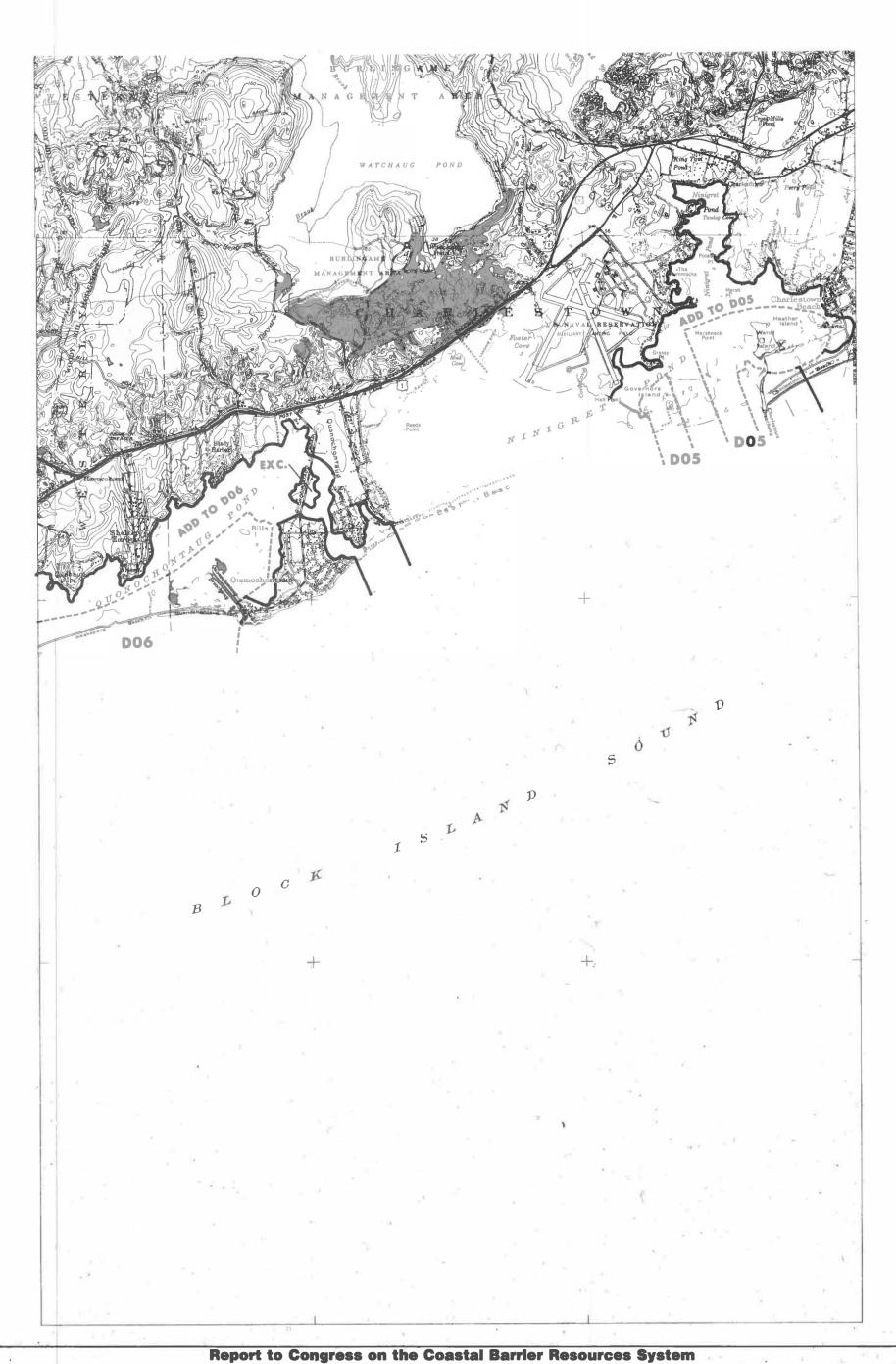
RHODE IŠLAND

| 1/2 | 0 | 1MILE | 1MILE | 1000 | 0 | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | FEET | 1 | 5 | 0 | 1 | KILOMETER |

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QUADRANGLE

QUONOCHONTAUG

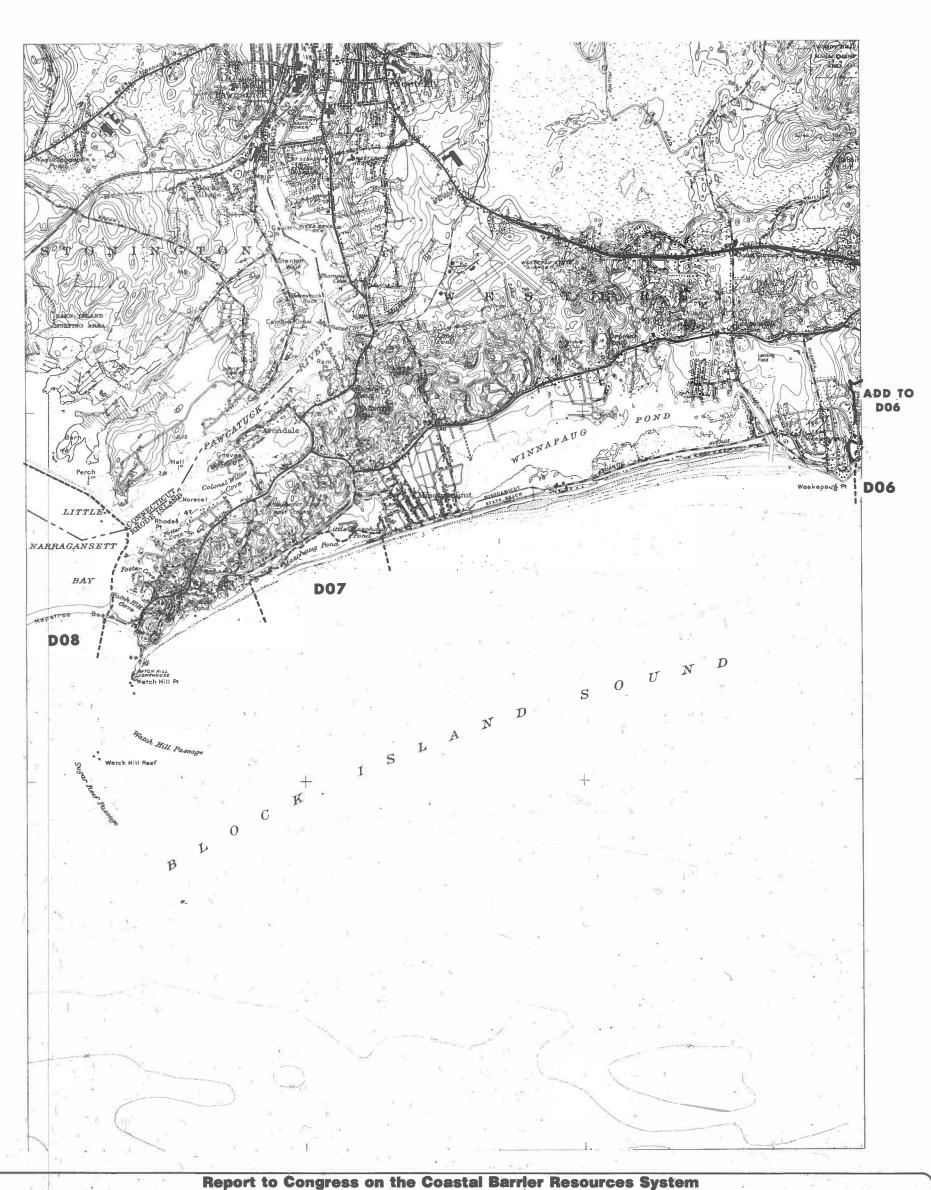
RHODE ISLAND

| 1/2 | 0 | 1 MILE | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | FEET | 1 | 5 | 0 | 1 KILOMETER |

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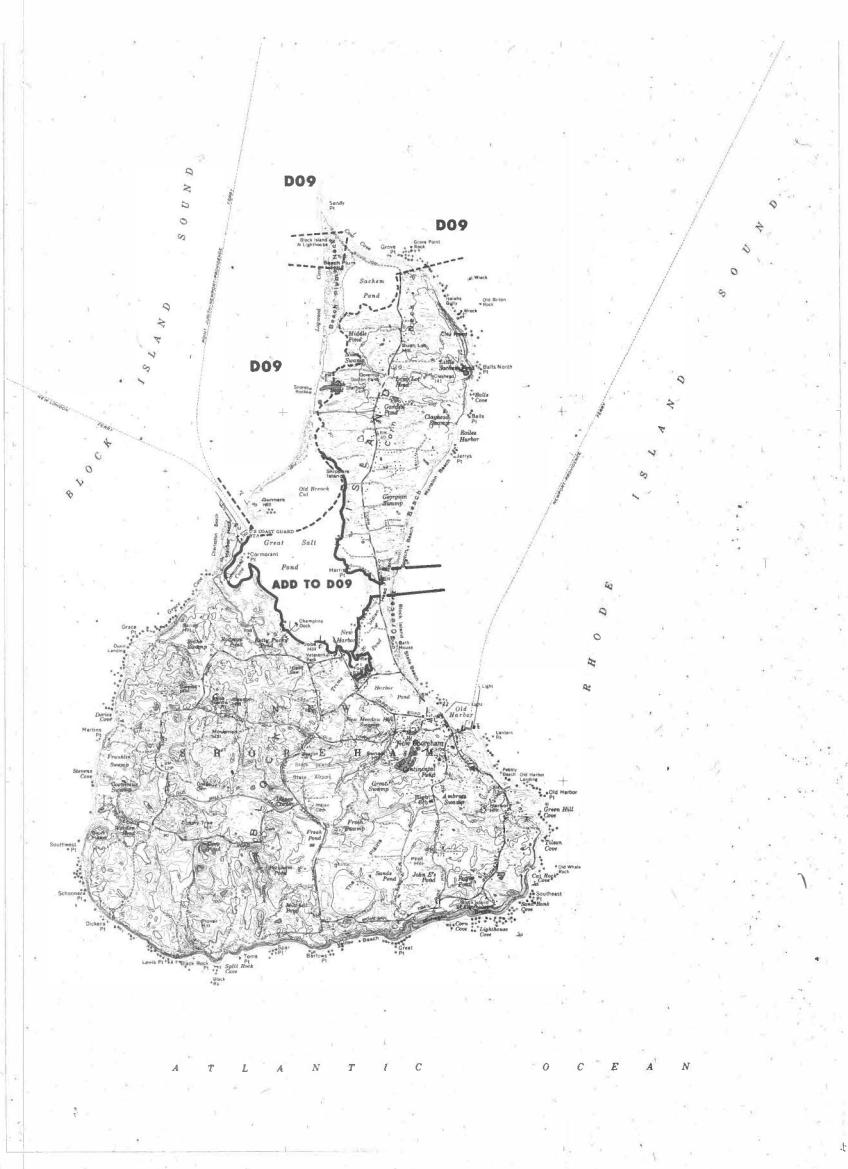
QUADRANGLE WATCH HILL

RHODE ISLAND

1 MILE 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1:KILOMETER 1000

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QUADRANGLE
BLOCK ISLAND

RHODE ISLAND SCALE

1 1/2 0 1 1 MILE 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET 1 5 0 1 KILOMETER Solid lines depict proposed recommendations for additions or deletions to the Coastal Barrier Resources System. (Section 10 of P.L. 97 - 348.)

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