

The State of Rhode Island

Coastal Resources Management Program

As Amended

LEGAL COUNSEL

GOLDMAN Law Offices
681 Smith Street
Providence, RI 02908

This document replaces Chapters 1 through 5 of the program adopted by the Coastal Resources Management Council in 1977.

Other adopted elements of the Rhode Island Coastal Resources Management Program include the Energy Amendments of 1979, Management Procedures, Right-of-Ways to the Shore, Special Area Management Plans for selected areas, and the Guidelines for the Development of Municipal Harbor Management Plans. These documents may be obtained from the Council's offices.

Acknowledgments

The development of the Rhode Island Coastal Resources Management Program was undertaken in 1973, approved by the CRMC in 1977, and federally-approved in 1978. In 1983, its first five chapters were replaced by this document, commonly referred to as the “Redbook” and initially printed for the Council through the University of Rhode Island’s Publication Office (P964 12/83 5M). The Redbook was last printed as a bound document in May of 1990.

This edition of the RICRMP is the first time that the Redbook has been formatted for a three-ring binder. It was printed in June 1996. All revisions to this edition are current as of December 14, 2010.

Over the years, many people devoted time and thought to this document and made significant contributions to its form and content.

For its initial development, John A. Lyons, chairman of the Coastal Resources Management Council, and CRMC's Working Group on Program Revision attended innumerable meetings to review several drafts of this document over a period of two years. The members of the group were Alvaro Freda, Dr. William Miner, Barbara Colt, Malcolm Grant, James Beattie, Frank Geremia, and Lee Whitaker. The entire Council attended many sessions of the Planning and Policy Subcommittee to discuss major policy issues raised by these amendments.

The many years' experience of the Council's staff led to the initial development of the standards listed in Part Three. Special thanks go to Nicholas Pisani, James Parkhurst, Linda Steere, and Gail Chmura, all of whom made substantial contributions to the document.

Various agencies, private groups, and individuals commented on the document during the initial nine-month public review period and made suggestions that are incorporated in the final product. Special thanks are due to Malcolm Grant of the Department of Environmental Management; Daniel Varin, chief of the Statewide Planning Program; Christopher Little of Save the Bay; Kenneth Payne, director of the League of Cities and Towns; Friends of the Waterfront (Newport); the Rhode Island Association of Realtors; and the Rhode Island Marine Trades Association. Over the years, these same groups have made many comments on proposed revisions and have kept active in the review process.

For the initial “Redbook” document (1983), the authors were Stephen Olsen and George Seavey, of URI’s Coastal Resources Center. The maps were originally drawn by Marion McHugh and Betsy Watkins. Vicki Desjardins did the final editing, and Larry Pearce was responsible for the layout and design. This current format for the Redbook, the three-ring bound document of the RICRMP, was prepared, edited, and designed by Joanne Moore and Jeff Willis of the Council’s staff.

The preparation of the original Redbook publication was financed in part by a grant from the National Oceanic and Atmospheric Administration, under the provisions of the Coastal Zone Management Act of 1972 (Public Law 92-583), and in part from the NOAA Office of Sea Grant, U.S. Department of Commerce, under Grant #NA-81AA-D-00073. This three-ring bound document was financed in part by a grant from the National Oceanic and Atmospheric Administration, under the provisions of the Coastal Zone Management Act of 1972 (Public Law 92-583), under Grant #NA57OZ0449. The U.S. Government is authorized to produce and distribute reprints for governmental purposes notwithstanding any copyright notation that may appear hereon.

Additional copies of this publication are available from the Coastal Resources Management Council, Oliver Stedman Government Center, 4808 Tower Hill Road, Wakefield, R.I 02879.

Three-Ring Original Edition
June 1996



Contents

Guidelines for Applicants

The Program's Enabling Legislation

Part One. Authorities and Procedures

- Section 100 Alterations and Activities That Require an Assent from the Coastal Resources Management Council
 - 100.1 Tidal Waters, Shoreline Features, and Contiguous Areas
 - 100.2 Inland of Shoreline Features and Contiguous Areas
 - 100.3 Critical Coastal Areas
 - 100.4 Freshwater Wetlands in the Vicinity of The Coast
- Section 110 Applications for Category A and Category B Council Assents
 - 110.1 Category A Applications
 - 110.2 Category B Applications
 - 110.3 Substantive Objections
 - 110.4 Findings of No Significant Impact
- Section 120 Variances
- Section 130 Special Exceptions
- Section 140 Setbacks
- Section 145 Climate Change and Sea level Rise
- Section 150 Coastal Buffer Zones
- Section 160 Fees
- Section 170 Violations and Enforcement Actions
- Section 180 Emergency Assents

Part Two. Areas Under Council Jurisdiction

- Section 200 Tidal and Coastal Pond Waters
 - 200.1 Type 1 Conservation Areas
 - 200.2 Type 2 Low-Intensity Use
 - 200.3 Type 3 High-Intensity Boating
 - 200.4 Type 4 Multipurpose Waters
 - 200.5 Type 5 Commercial and Recreational Harbors
 - 200.6 Type 6 Industrial Waterfronts and Commercial Navigation Channels

- Section 210 Shoreline Features
 - 210.1 Coastal Beaches
 - 210.2 Barrier Islands and Spits
 - 210.3 Coastal Wetlands
 - 210.4 Coastal Headlands, Bluffs, and Cliffs
 - 210.5 Rocky Shores
 - 210.6 Manmade Shorelines
 - 210.7 Dunes

- Section 220 Areas of Historic and Archaeological Significance

Part Three. Activities Under Council Jurisdiction

- Section 300 In Tidal and Coastal Pond Waters, on Shoreline Features and Their Contiguous Areas
 - 300.1 Category B Requirements
 - 300.2 Filling, Removing, or Grading of Shoreline Features
 - 300.3 Residential, Commercial, Industrial, and Recreational Structures

- 300.4 Recreational Boating Facilities
- 300.5 Mooring and Anchoring of Houseboats and Floating Businesses
- 300.6 Treatment of Sewage and Stormwater
- 300.7 Construction of Shoreline Protection Facilities
- 300.8 Energy-Related Activities and Structures
- 300.9 Dredging and Dredged Materials Disposal
- 300.10 Filling in Tidal Waters
- 300.11 Aquaculture
- 300.12 Coastal Wetland Mitigation
- 300.13 Public Roadways, Bridges, Parking Lots, Railroad Lines and Airports
- 300.14 Maintenance of Structures
- 300.15 Municipal Harbor Regulations
- 300.16 Boat Lift and Float Lift Systems
- 300.17 Wetland Walkover Structures
- 300.18 Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern

- Section 310 Alterations to Freshwater Flows to Tidal Waters and Water Bodies and Coastal Ponds
- Section 320 Inland Activities and Alterations That Are Subject to Council Permitting
- Section 325 Activities Located within Critical Coastal Areas
- Section 330 Guidelines for the Protection and Enhancement of the Scenic Value of the Coastal Region
- Section 335 Protection and Enhancement of Public Access to the Shore
- Section 400 Federal Consistency

Glossary

References and Additional Sources of Information

Shoreline Change Maps

Watch Hill to Little Compton - online at: http://www.crmc.ri.gov/maps/maps_shorechange.html

Maps of Water Use Categories

Municipality-based maps – online at: http://www.crmc.ri.gov/maps/maps_wateruse.html

List of Tables and Figures

- Table 1 Review Categories and Prohibited Activities in Tidal Waters and on Adjacent Shoreline Features
- Figure 1 Rhode Island's Territorial Sea
- Table 1A Review Categories in the 200-Foot Area Contiguous to Shoreline Features
- Table 1B Review Categories for Inland Activities (Section 320)
- Figure 2 An Example of the Application of a Coastal Buffer Zone
- Table 2A Coastal Buffer Zone Designations for Residential Development
- Table 3 Shoreline Types and Their Susceptibility to Erosion
- Table 4 Undeveloped, Moderately Developed, and Developed Barrier Beaches
- Table 4a Dwelling Rebuilds and Additions for Maintenance Activities under Section 300.14

Step One. Is a Council Assent Required?

All developments or operations within, above or beneath the tidal waters below the mean high water mark extending out to the extent of the state's jurisdiction in the territorial sea, and those occurring on coastal features or within all directly associated contiguous areas which are necessary to preserve the integrity of coastal resources, or any portion of which extends onto the most inland shoreline feature or its 200 foot contiguous area, or as otherwise set out in the Coastal Resources Management Program, require a Council Assent. (See the Glossary section for a definition of development.)

Persons proposing the following activities any portion of which extends onto the most inland shoreline feature or its 200 foot contiguous area are required to apply for a Council Assent: subdivisions, cooperatives, or other multi-ownership facilities [of six units or more], or facilities requiring or creating 40,000 sq. ft. or more of parking.

Persons proposing the following activities within critical coastal areas, which include the watersheds of poorly flushed areas delineated on maps accompanying this program, are required to apply for a Council Assent: subdivisions, cooperatives, and other multi-ownership facilities [of six (6) units or more]; any structure serviced by an on-site sewage disposal system servicing 2,000 gallons or more per day; any activity which results in the creation of 40,000 sq. ft. or more of impervious surface; construction or extension of municipal or industrial sewage facilities or systems (not connections to individual homes); construction or extension of water distribution systems or supply lines (not connections to individual homes).

Persons proposing selected inland activities anywhere in the state that may require a Council Assent shall request a review of the project to determine whether impacts on the environment of the coastal region are likely and, therefore, whether a Council Assent will be required. These selected inland activities are (1) energy generation, transfer, processing, or storage; (2) chemical processing; (3) minerals extraction; (4) sewage treatment and disposal; or (5) solid waste disposal.

Persons proposing any project or activity which may alter the character any freshwater wetland in the vicinity of the coast, and which is not specifically exempt under the Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast, are required to apply for a Council Assent. When it is not clear as to whether or not freshwater wetland exist in the area of any proposed activity, or whether the proposed activity requires a Council Assent, persons should consult with the Council prior to undertaking any activity.

Step Two. Where Is The Activity or Alteration Being Proposed?

Locate the area where an activity or alteration is proposed on the maps that accompany this Program. Then note the water use category (if an on-land activity is proposed, the adjoining water use category). If the shoreline is designated a Critical Erosion Area, note the average annual erosion rate. In these areas, non-water-dependent structures must set back a distance equivalent to 30 times the annual erosion rate (see Section 140). The prerequisites, standards, and Category B requirements for on-land activities listed in Section 300.1 through 300.16 and in Sections 330 and 335 of this document apply to both shoreline features and their 200-foot contiguous area.

Identify the shoreline features that may be affected. The maps give some indication of the shoreline features that may be involved, but this must be verified by inspecting the site. The definitions of shoreline features in Part Two of this document will further assist you in identifying what shoreline features are present.

If the proposed activity or alteration is not located in Rhode Island's coastal waters, on or within the 200 foot contiguous area, or a statewide activity listed in Section 320, determine if it is located within a

critical coastal area. If the proposed alteration or activity is listed in Section 325, then you will need to apply for a Council Assent.

If the proposed project or activity may alter the character of any freshwater wetland in the vicinity of the coast and is not specifically exempt, then you will need to apply for a Council Assent.

Step Three. What Regulations Apply?

The prerequisites, policies, and standards in this Program are regulations that must be met by all persons who undertake alterations and activities under the Council's jurisdiction.

If the alteration proposed is for tidal waters or for a shoreline feature, turn to the appropriate section of Table 1 and match the activity with the water area and shoreline type. The table will tell you if the activity you propose is prohibited or will be processed as a Category A or Category B application. Table 1A lists the review categories for activities proposed in the 200-foot area contiguous to shoreline features.

If the proposed alteration is within a critical coastal area, consult the appropriate Special Area Management Plan for supplemental policies, standards, and requirements. Table 1B lists the review categories for inland activities subject to the requirements of Section 320 or 325.

If the proposed project or activity is located within any freshwater wetland in the vicinity of the coast, the area of land within fifty feet (50') or on a riverbank, then the Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast shall apply.

A. Category A Applications

1. Review the policies in Part Two for the water use and shoreline categories your proposal may affect. These may set limits on what may be permitted or provide guidance on how the work should be undertaken.

2. Turn to the appropriate section in Part Three and (a) note any prerequisites that you must meet before filing for a Council Assent, and (b) review all standards.

When filing a Category A application you must commit yourself to upholding all applicable standards. If you cannot or do not wish to meet one or more standards, you must apply for a variance (Section 120), if applicable.

3. File your application. If the activity you propose is not starred (*) on Table 1 and you meet all applicable standards, and if all information requirements have been verified by the Council's staff, review of the application will begin. If grounds for a substantive objection (Section 110.3) exist on the proposed site (for example, the presence of rare or endangered species or severe building constraints), a Council member or the Council's staff will recommend review by the full Council, and the application will be put out to public notice.

4. If the activity you propose is starred (*), public notice will be given of your proposal; abutters to the affected property and local and state officials will be notified of your proposal. If one or more substantive objections (see Section 110) are filed within the 30-day notice period, a public hearing on your proposal will be scheduled and a Council subcommittee appointed to hear the objections, review your application, and recommend action to the full Council.

B. Category B Applications

1. Complete 1 and 2 above as for a Category A Assent.

2. Prepare in writing an environmental assessment of your proposal. This must address all items listed in Section 300.1 and any additional requirements for Category B applications listed for the activity in question in the appropriate sections of Part Three. The amount of detail appropriate for each topic will vary depending on the magnitude of the project and the likely impacts. If, in your opinion, some issues do not apply, simply note: "Does not apply."

3. All Category B applications are put out to public notice. A public hearing will be scheduled if one or more substantive objections are filed within the 30-day notice period. A Council subcommittee will review your proposal, the comments prepared by its staff, and all other pertinent materials, and will recommend action to the full Council. If your proposal is uncontested, you may expect Council action within 30 working days of verification by the Council's staff that all informational requirements have been met. The Council shall base its decision on consideration of how your proposal conforms to goals for the shoreline features and water use categories affected, other relevant policies, and the significance of the likely impacts of your proposal on the environment of the coastal region.

**The
Program's
Enabling
Legislation
(1971)
as Amended**

**Title 46 Chapter 23
Rhode Island General Laws
Coastal Resources Management Council**

46-23-1. Legislative findings.

(a)(1) Under article 1, § 17 of the Rhode Island Constitution, the people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the charter and usages of this state, including but not limited to fishing from the shore, the gathering of seaweed, leaving the shore to swim in the sea and passage along the shore; and they shall be secure in their rights to use and enjoyment of the natural resources of the state with due regard for the preservation of their values; and it is the duty of the general assembly to provide for the conservation of the air, land, water, plant, animal, mineral and other natural resources of the state, and to adopt all means necessary and proper by law to protect the natural environment of the people of the state by providing adequate resource planning for the control and regulation of the use of the natural resources of the state and for the preservation, regeneration, and restoration of the natural environment of the state.

(2) The general assembly recognizes and declares that the coastal resources of Rhode Island, a rich variety of natural, commercial, industrial, recreational, and aesthetic assets, are of immediate and potential value to the present and future development of this state; that unplanned or poorly planned development of this basic natural environment has already damaged or destroyed, or has the potential of damaging or destroying, the state's coastal resources, and has restricted the most efficient and beneficial utilization of these resources; that it shall be the policy of this state to preserve, protect, develop, and, where possible, restore the coastal resources of the state for this and succeeding generations through comprehensive and coordinated long range planning and management designed to produce the maximum benefit for society from these coastal resources; and that preservation and restoration of ecological systems shall be the primary guiding principle upon which environmental alteration of coastal resources will be measured, judged, and regulated.

(b)(1) That effective implementation of these policies is essential to the social and economic well-being of the people of Rhode Island because the sea and its adjacent lands are major sources of food and public recreation, because these resources are used by and for industry, transportation, waste disposal, and other purposes, and because the demands made on these resources are increasing in number, magnitude, and complexity; and that these policies are necessary to protect the public health, safety, and general welfare. Pursuant to 16 U.S.C. § 1452 ("The Coastal Zone Management Act"), the General Assembly hereby directs the council (referred to as "CRMC") to exercise effectively its responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone.

(2) Furthermore, that implementation of these policies is necessary in order to secure the rights of the people of Rhode Island to the use and enjoyment of the natural resources of the state with due regard for the preservation of their values, and in order to allow the general assembly to fulfill its duty to provide for the conservation of the air, land, water, plant, animal, mineral, and other natural resources of the state, and to adopt all means necessary and proper by law to protect the natural environment of the people of the state by providing adequate resource planning for the control and regulation of the use of the natural resources of the state and for the preservation, regeneration, and restoration of the natural environment of the state.

(c) That these policies can best be achieved through the creation of a coastal resources management council as the principal mechanism for management of the state's coastal resources.

(d) The general assembly recognizes and declares that maintenance dredging is required to remove natural silt accumulations; Rhode Island has not had a general maintenance dredging policy and programs for ports, port facilities, channels, harbors, public and private marinas and boating facilities, recreational facilities and habitat areas; other major coastal states have maintenance dredging policies and in-water maintenance dredge disposal sites; as a result of the lack of a general maintenance dredging policy and program and as a result there has been: (1) a decrease in the depth of the Providence Channel from forty-four (44) feet in 1971 to twenty-four (24) feet in 1996; (2) navigational restrictions on ocean going vessels through the state's waterways and channels; and (3) a decrease in the number of available slips and moorings at marinas throughout the state; and the lack of a maintenance dredging policy and programs have significant adverse environmental and economic effects on the state and therefore it is in the best interest of the state, the cities and towns of the state, and the citizens thereof for the state to have a general maintenance dredging policy and programs to resolve issues related to dredge maintenance and disposal and avoid future significant direct and indirect adverse impact on the environment and economy of the state.

(e) The coastal resources management council is hereby designated as the lead state agency for purposes of dredging in tidal waters and as such shall have the following duties and responsibilities:

- (1) To coordinate the interest of the state with regard to dredging;
- (2) To formulate and adopt a state policy with regard to dredging which integrates those interests;
- (3) To cooperate with, negotiate, and to enter into agreements on behalf of the state with the federal government and with other public bodies and private parties with regard to dredging;
- (4) To act as the initial and primary point of contact for all applications to the state for dredging projects in tidal waters;
- (5) To develop, prepare, adopt pursuant to § 46-23-11, implement, and maintain a comprehensive plan for dredge material management; and
- (6) To cooperate and coordinate with the departments of environmental management, transportation, administration, and health, and the economic development corporation in the conduct of these duties and responsibilities.

(f)(1) The legislature recognizes that under Article I, § 17, the submerged lands of the state are impressed with a public trust and that the state is responsible for the protection of the public's interest in these lands. The state maintains title in fee to all soil within its boundaries that lies below the high water mark, and it holds that land in trust for the use of the public. In benefiting the public, the state preserves certain public rights which include but are not limited to fishery, commerce, and navigation in these waters and the submerged lands that they cover.

(2) Since its establishment in 1971, the CRMC has had the authority to manage and plan for the preservation of the coastal resources of the state including but not limited to submerged lands. The legislature hereby declares that, in light of the unique size, scope, and overall potential impact upon the environment of large scale filling projects involving twenty-five (25) acres or more, any lease of tidal lands, or any license to use those lands, is subject to approval, disapproval, or conditional approval by the direct enactment of the general assembly by legislative action. CRMC shall review all requests for leases, licenses to use the land, and other authority to use the land made by any applicant prior to presentation of the request to the general assembly, and the CRMC shall make recommendations on the request to the general assembly. With the exception of any and all projects to fill land of twenty-five (25) acres or more, the general assembly hereby recognizes and declares that the CRMC is delegated the sole and exclusive authority for the leasing of submerged and filled lands and giving licenses for the use of that land. Accordingly, the CRMC will develop, coordinate, and adopt a system for the leasing of submerged and

filled lands, and licenses for the use of that land, and will ensure that all leases and licenses are consistent with the public trust. Pursuant thereto, the CRMC shall impose a maximum fee of eighty thousand dollars (\$80,000) per annum for any transatlantic cable that makes landfall in Rhode Island. All such fees collected shall be deposited into the Bays, Rivers and Watersheds Fund, established pursuant to § 46-31-12.1, and shall be disbursed according to the purposes of that fund. Nothing contained in this subsection negates, repeals, or alters the provisions, processes, and requirements for the leasing of submerged land for the conduct of aquaculture as set out under chapter 10 of title 20. Therefore, nothing in this chapter shall be construed to limit or impair the authority of the state, or any duly established agency of the state, to regulate filling or dredging affecting tidal lands owned by the state or any other entity, and nothing in this chapter shall be construed to limit or impair the obligation of the applicant to obtain all applicable regulatory approvals. Specifically, and without limiting the foregoing, nothing in this subsection negates, repeals, or alters the provisions, processes, and requirements for water quality certification contained in chapter 12 of this title.

(3) Definitions.

(i) "Filled land" means portions of tidal lands which have been rendered by the acts of man to be no longer subject to tidal action or beneath tidal waters.

(ii) "Tidal Lands" means those lands that are below the mean high water.

(iii) "Mean high water" means a line of contour representing the 18.6 year average as determined by the metonic cycle and/or its equivalent as evidenced by the records, tidal datum, and methodology of the United States coastal geodetic survey within the national oceanic and atmospheric administration.

46-23-2. Coastal resources management council created - Appointment of members.

(a) There is hereby created the coastal resources management council.

(1) The coastal resources management council shall consist of sixteen (16) members, two (2) of whom shall be members of the house of representatives, at least one of the members shall represent a coastal municipality, appointed by the speaker, two (2) of whom shall be members of the senate, each of whom shall represent a coastal municipality, appointed by the president of the senate, two (2) of whom shall be from the general public appointed by the speaker of the house for a term of two (2) years, two (2) of whom shall be from a coastal municipality appointed by the speaker of the house for a term of three (3) years.

(2) In addition, four (4) of the members shall be appointed or elected officials of local government appointed by the governor, one of whom shall be from a municipality of less than twenty-five thousand (25,000) population, appointed to serve until January 31, 1972, one of whom shall be from a coastal municipality of more than twenty-five thousand (25,000) population appointed to serve until January 31, 1973, and one of whom shall be from a coastal municipality of less than twenty-five thousand (25,000) population appointed to serve until January 31, 1974, and one of whom shall be from a coastal community of more than twenty-five thousand (25,000) population appointed to serve until January 31, 1975, the populations are to be determined by the latest federal census; all members shall serve until their successors are appointed and qualified; during the month of January, the governor shall appoint a member to succeed the member whose term will then next expire for a term of four (4) years commencing on the first day of February then next following and until his or her successor is named and qualified; each municipal appointment shall cease if the appointed or elected official shall no longer hold or change the office which he or she held upon appointment, and further, each appointee shall be eligible to succeed him or herself.

(3) Three (3) members shall be appointed by the governor from the public, with the advice and consent of the senate, one of whom shall serve until January 1, 1972, one of whom shall serve until January 1, 1973 and one of whom shall serve until January 1, 1974; the members and their successors shall represent a coastal community.

(4) All members shall serve until their successors are appointed and qualified; during the month of January, the governor shall appoint, with advice and consent of senate, a member to succeed the members whose term will then next expire for a term of three (3) years commencing on the first day of February next following and until his or her successor is named and qualified. A member shall be eligible to succeed him or herself. No more than two (2) persons on the council shall be from the same community.

(5) Appointments shall first be made by the governor, then by the president of the senate, and then by the speaker. The commissioner of the environmental protection branch or his or her designee within the department of environment shall serve ex officio. The ex-officio member shall not be counted as serving from any particular community.

(b) In addition to the foregoing voting members, the council shall include a varying number of other members who shall serve in an advisory capacity without the right to vote and who shall be invited to serve by either the governor or the voting members. These advisory members shall represent the federal agencies such as the navy, coast guard, corps of engineers, public health service, and the federal water pollution control administration, and such regional agencies as the New England river basins commission and the New England regional commission and any other group or interest not otherwise represented.

(c) There shall be established a coastal resources advisory committee which committee, appointed by the executive director of the coastal resources management council, shall include, but not be limited to, representation from the following groups: one of whom shall be a representative of the University of Rhode Island Graduate School of Oceanography and the College of Resources Development, one of whom shall be a representative of the Sea Grant National College Program, one of whom shall be a representative of the army corps of engineers, one of whom shall be a representative of the federal environmental protection agency's Narragansett Bay laboratory, one of whom shall be a representative of the coastal resources management council, one of whom shall be the director of environmental management; one of whom shall be a member of the Rhode Island Marine Trade Association and one of whom shall be a representative of a regional environmental group. The council shall have the authority to appoint such additional members to said advisory committee as is deemed necessary or advisable by the advisory committee or the council. It shall be the responsibility of the committee to advise the coastal resources management council on environmental issues relating to dredging and permitting related thereto, including but not limited to those issues defined in §§ 46-23-18.1 - 46-23-18.3, inclusive.

(d) The council shall have the authority to form committees of other advisory groups as needed from both its own members and others.

46-23-2.1. Members - Term of office - Vacancies.

(a) The term of office of the appointed members shall be three (3) years, only so long as the members shall remain eligible to serve on the council under the appointment authority.

(b) The members are eligible to succeed themselves.

(c) Elected or appointed municipal officials shall hold seats on the council, only so long as they remain in their elected or appointed office. Members of the senate and house shall serve at the pleasure of the appointing authority and shall not be subject to the provisions of subsection (b) of this section.

(d) A vacancy other than by expiration shall be filled in the manner of the original appointment but only for the unexpired portion of the term. The appointing authority shall have the power to remove its appointee for just cause.

46-23-3. Oath of members.

Each appointed member of the council, before entering upon his or her duties, shall take an oath to administer the duties of his or her office faithfully and impartially, and the oath shall be filed in the office of the secretary of state.

46-23-4. Officers of the council - Quorum and vote required for action.

The governor, upon the appointment of the appointed members of the council, shall select from the appointed members a chairperson and vice chairperson. The council shall thereupon select a secretary from among its membership or staff. The council may engage such staff, including legal counsel, as it deems necessary. A quorum shall consist of seven (7) members of the council. A majority vote of those present shall be required for action.

46-23-4.1. The commissioner of coastal resources management.

The council shall engage a commissioner of coastal resources management who shall be an employee of the council and who shall not be a member of the council. The commissioner shall coordinate and liaison with the director of the environment, and his or her staff shall be at the same staff level as the other commissioners and shall work directly with the other commissioners. The commissioner of coastal resources management shall be in the unclassified service. The duties and powers of the commissioner of coastal resources management shall be determined by the council. The council shall not engage a commissioner of coastal resources management for more than five (5) years; provided, however, that the council may renew its contract with the commissioner of coastal resources management.

46-23-5. Expenses of members.

(a) The members of the council and the chairperson shall not be compensated for their service on the board, but the members and chairperson shall be reimbursed for their actual expenses necessarily incurred in the performance of their duties.

(b) [Deleted by P.L. 2005, ch. 117, art. 21, § 34.]

46-23-6. Powers and duties - Rights-of-way. -In order to properly manage coastal resources the council has the following powers and duties:

(1) Planning and management.

(i) The primary responsibility of the council shall be the continuing planning for and management of the resources of the state's coastal region. The council shall be able to make any studies of conditions, activities, or problems of the state's coastal region needed to carry out its responsibilities.

(ii) The resources management process shall include the following basic phases:

(A) Identify all of the state's coastal resources, water, submerged land, air space, fin fish, shellfish, minerals, physiographic features, and so forth.

- (B) Evaluate these resources in terms of their quantity, quality, capability for use, and other key characteristics.
- (C) Determine the current and potential uses of each resource.
- (D) Determine the current and potential problems of each resource.
- (E) Formulate plans and programs for the management of each resource, identifying permitted uses, locations, protection measures, and so forth.
- (F) Carry out these resources management programs through implementing authority and coordination of state, federal, local, and private activities.
- (G) Formulation of standards where these do not exist, and reevaluation of existing standards.
- (H) To develop comprehensive programs for dredging in tidal waters and related beneficial use, disposal, monitoring dewatering and transportation of dredge materials.
- (I) To accept and administer loans and grants from the federal government and from other sources, public or private, for the carrying out of any of its functions, which loans or grants shall not be expended for other than the purposes for which provided.
- (J) To encourage, participate in, or conduct studies, investigations, research, and demonstrations relating to dredging, disposal of dredge materials and transportation thereof in the tidal waters of the state as the coastal resources management council may deem advisable and necessary for the discharge of its duties under this chapter.
- (K) To collect and disseminate information relating to dredging, disposal of dredge materials and transportation thereof within the tidal waters of the state.
- (L) To work with the appropriate federal and state agencies to develop as provided for in this chapter and in chapter 6.1 of this title, a comprehensive plan for dredging in tidal waters and related beneficial use, disposal, monitoring dewatering and transportation of dredge materials.
- (M) To apply for, accept and expend grants and bequests of funds, for the purpose of carrying out the lawful responsibilities of the coastal resources management council.

(iii) An initial series of resources management activities shall be initiated through this basic process, then each phase shall continuously be recycled and used to modify the council's resources management programs and keep them current.

(iv) Planning and management programs shall be formulated in terms of the characteristics and needs of each resource or group of related resources. However, all plans and programs shall be developed around basic standards and criteria, including:

- (A) The need and demand for various activities and their impact upon ecological systems.
- (B) The degree of compatibility of various activities.
- (C) The capability of coastal resources to support various activities.
- (D) Water quality standards set by the director of environmental management.
- (E) Consideration of plans, studies, surveys, inventories, and so forth prepared by other public and private sources.
- (F) Consideration of contiguous land uses and transportation facilities.
- (G) Whenever possible consistency with the state guide plan.

(v) The council shall prepare, adopt, administer, and cause to be implemented, including specifically through its powers of coordination as set forth in subdivision (3) of this section, a marine resources development plan and such special area management plans as the council may determine to be appropriate or desirable as follows:

(A) Marine resources development plan.

- (1) The purpose of the marine resources development plan shall be to provide an integrated strategy for:
 - (a) improving the health and functionality of Rhode Island's marine ecosystem; (b) providing for appropriate marine-related economic development; and (c) promoting the use and enjoyment of Rhode Island's marine resources by the people of the state.
- (2) The marine resources development plan shall include specific goals and objectives necessary to accomplish its purposes, performance measures to determine progress toward achieving such goals and objectives, and an implementation program.
- (3) The marine resources development plan shall be prepared in cooperation with the department of environmental management, the statewide planning program, and the economic development corporation, with the involvement of such other state agencies as may be appropriate, and with such technical support as may be necessary and appropriate from the Narragansett Bay Estuary Program, the Coastal Institute at the University of Rhode Island, and Rhode Island Sea Grant.
- (4) The plan shall be responsive to the requirements and principles of the federal coastal zone management act as amended, including, but not limited to, the expectations of the act for incorporating the federal clean water act into coastal zone management programs.
- (5) The marine resources development plan shall take into account local land use management responsibilities as provided for under title 45 and harbor management responsibilities, and the preparation of the plan shall include opportunities for involvement and/or comment by cities and towns.
- (6) The marine resources development plan shall be adopted by the council in accordance with the provisions of this subsection by July 1, 2005, shall as appropriate incorporate the recommendations of the Governor's Narragansett Bay and Watershed Planning Commission, and shall be made consistent with systems level plans as appropriate, in order to effectuate the purposes of systems level planning. The council shall update the marine resources development plan at least once every five (5) years.
- (7) The council shall administer its programs, regulations, and implementation activities in a manner consistent with the marine resources development plan.
- (8) The marine resources development plan and any updates thereto shall be adopted as appropriate as elements of the state guide plan pursuant to § 42-11-10.

(B) Special area management plans.

- (1) The council shall adopt such special area management plans as deemed necessary and desirable to provide for the integration and coordination of the protection of natural resources, the promotion of reasonable coastal-dependent economic growth, and the improved protection of life and property in the specific areas designated council as requiring such integrated planning and coordination.
- (2) The integrated planning and coordination herein specified shall include, but not be limited to, federal agencies, state agencies, boards, commissions, and corporations, including specifically the economic development corporation, and cities and towns, shall utilize to the extent appropriate and feasible the capacities of entities of higher education, including Rhode Island Sea Grant, and shall provide for the participation of advocacy groups, community-based organizations, and private persons.

(3) The council shall administer its programs, regulations, and implementation activities in a manner consistent with special area management plans.

(4) Special area management plans and any updates thereto shall be adopted as appropriate as elements of the state guide plan pursuant to § 42-11-10.

(2) *Implementation.*

(i) The council is authorized to formulate policies and plans and to adopt regulations necessary to implement its various management programs. With respect to such policies and plans which relate to matters where the coastal resources management council and the department of environmental management have concurrent jurisdiction and upon formulation of the plans and regulations, the council shall, prior to adoption, submit the proposed plans or regulations to the director of the environmental management for the director's review. The director shall review and submit comments to the council within thirty (30) days of submission to the director by the council. The comments of the director shall include findings with regard to the consistency of the policies, plans and/or regulations with the requirements of laws administered by the department. The council shall consider the director's comments prior to adoption of any such policies, plans or regulations and shall respond in writing to findings of the director with regard to the consistency of said policies, plans and/or regulations with the requirements of laws administered by the department.

(ii) (A) The council shall have exclusive jurisdiction below mean high water for all development, operations, and dredging, consistent with the requirements of chapter 6.1 of this title and except as necessary for the department of environmental management to exercise its powers and duties and to fulfill its responsibilities pursuant to §§ 42-17.1-2 and 42-17.1-24, and any person, firm, or governmental agency proposing any development or operation within, above, or beneath the tidal water below the mean high water mark, extending out to the extent of the state's jurisdiction in the territorial sea, shall be required to demonstrate that its proposal would not:

(I) Conflict with any resources management plan or program; (II) Make any area unsuitable for any uses or activities to which it is allocated by a resources management plan or program adopted by the council; or (III) Significantly damage the environment of the coastal region.

(B) The council shall be authorized to approve, modify, set conditions for, or reject any such proposal.

(iii) The authority of the council over land areas (those areas above the mean high water mark) shall be limited to two hundred feet (200') from the coastal physiographic feature or to that necessary to carry out effective resources management programs. This shall be limited to the authority to approve, modify, set conditions for, or reject the design, location, construction, alteration, and operation of specified activities or land uses when these are related to a water area under the agency's jurisdiction, regardless of their actual location. The council's authority over these land uses and activities shall be limited to situations in which there is a reasonable probability of conflict with a plan or program for resources management or damage to the coastal environment. These uses and activities are:

(A) Power generating over forty (40) megawatts and desalination plants.

(B) Chemical or petroleum processing, transfer, or storage.

(C) Minerals extraction.

(D) Shoreline protection facilities and geographical features, and all directly associated contiguous areas which are necessary to preserve the integrity of the facility and/or features.

(E) Coastal wetlands and all directly associated contiguous areas which are necessary to preserve the integrity of the wetlands including any freshwater wetlands located in the vicinity of the coast. The

actual determination of freshwater wetlands located in coastal vicinities and under the jurisdiction of the coastal resources management council shall be designated on such maps that are agreed to in writing and made available for public use by the coastal resources management council and the director, department of environmental management, within three (3) months of [August 6, 1996] The CRMC shall have exclusive jurisdiction over the wetlands areas described in this section notwithstanding any provision of chapter 1, title 2 or any other provision, except as provided in subsection (iv) of this section. Within six (6) months of [August 6, 1996] the council in cooperation with the director shall develop rules and regulations for the management and protection of freshwater wetlands, affected by an aquaculture project, outside of those freshwater wetlands located in the vicinity of the coast and under the exclusive jurisdiction of the director of the department of environmental management. For the purpose of this chapter, a "coastal wetland" shall mean any salt marsh bordering on the tidal waters of this state, whether or not the tidal waters reach the littoral areas through natural or artificial watercourses, and those uplands directly associated and contiguous thereto which are necessary to preserve the integrity of that marsh. Marshes shall include those areas upon which grow one or more of the following: smooth cordgrass (*Spartina alterniflora*), salt meadow grass (*Spartina patens*), spike grass (*Distichlis spicata*), black rush (*Juncus gerardi*), saltworts (*Salicornia spp.*), sea lavender (*Limonium carolinianum*), saltmarsh bulrushes (*Scirpus spp.*), hightide bush (*Iva frutescens*), tall reed (*Phragmites communis*), tall cordgrass (*Spartina pectinata*), broadleaf cattail (*Typha latifolia*), narrowleaf cattail (*Typha angustifolia*), spike rush (*Eleocharis rostellata*), chairmaker's rush (*Scirpus americana*), creeping bentgrass (*Agrostis palustris*), sweet grass (*Hierochloa odorata*), and wild rye (*Elymus virginicus*).

(F) Sewage treatment and disposal and solid waste disposal facilities.

(G) Beneficial use, dewatering, and disposal of dredged material of marine origins, where such activities take place within two hundred (200) feet of mean high water or a coastal physiographic feature, or where there is a reasonable probability of conflict with a plan or program for resources management or damage to the coastal environment.

(iv) Notwithstanding the provisions of subsections (ii) and (iii) above, the department of environmental management shall maintain jurisdiction over the administration of chapter 1, title 2, including permitting of freshwater wetlands alterations and enforcement, with respect to all agricultural activities undertaken by a farmer, as that term is defined in subsection 2-1-22(j), wherever located; provided, however, that with respect to activities located partially or completely within two hundred feet (200') of the coastal physiographic feature, the department shall exercise jurisdiction in consultation with the council.

(3) *Coordination.* The council has the following coordinating powers and duties:

(i) Functioning as a binding arbitrator in any matter of dispute involving both the resources of the state's coastal region and the interests of two (2) or more municipalities or state agencies.

(ii) Consulting and coordinating actions with local, state, regional, and federal agencies and private interests.

(iii) Conducting or sponsoring coastal research.

(iv) Advising the governor, the general assembly, and the public on coastal matters.

(v) Serving as the lead state agency and initial and primary point of contact for dredging activities in tidal waters and in that capacity, integrating and coordinating the plans and policies of other state agencies as they pertain to dredging in order to develop comprehensive programs for dredging as required by subparagraph (1)(ii)(H) of this section and chapter 6.1 of this title. The Rhode Island Resource Recovery

Corporation prior to purchasing cover material for the state landfill shall first contact CRMC to see if there is a source of suitable dredged material available which shall be used in place of the purchase cover material. Other state agencies engaged in the process of dump closures shall also contact the CRMC to see if there is a source of suitable dredged material available, which shall be used in place of the purchase cover material. In addition, cities and towns may contact the CRMC prior to closing city or town controlled dump sites to see if there is a source of suitable dredge material available, which may be used in place of the purchase cover material.

(vi) Acting as the state's representative to all bodies public and private on all coastal and aquaculture related matters.

(4) *Operations.* The council is authorized to exercise the following operating functions, which are essential to management of coastal resources:

(i) Issue, modify, or deny permits for any work in, above, or beneath the areas under its jurisdiction, including conduct of any form of aquaculture.

(ii) Issue, modify, or deny permits for dredging, filling, or any other physical alteration of coastal wetlands and all directly related contiguous areas which are necessary to preserve the integrity of the wetlands, including, but not limited to the transportation and disposal of dredge materials in the tidal waters.

(iii) Grant licenses, permits, and easements for the use of coastal resources which are held in trust by the state for all its citizens, and impose fees for private use of these resources.

(iv) Determining the need for and establishing pierhead, bulkhead, and harbor lines.

(v) Enforcing and implementing riparian rights in the tidal waters after judicial decisions.

(vi) The council may require an owner or operator of a commercial wharf or pier of a marine commercial facility, as defined in 300.3 of the Rhode Island Coastal Resources Management Program, but not including those facilities defined in 300.4 of the Rhode Island Coastal Resources Management Program, and which is capable of offloading cargo, and is or will be subject to a new use or a significant intensification of an existing use, to demonstrate that the commercial wharf or pier is fit for that purpose. For the purposes of this subsection, a commercial wharf or pier shall mean a pier, bulkhead, wharf, docking facility, or underwater utilities. The council may order said owner or operator to provide an engineering certification to the council's satisfaction that the commercial wharf or pier is fit for the new use or intensification of an existing use. If the council determines that the commercial wharf or pier is not fit, it may order the owner or operator to undertake the necessary work to make the commercial wharf or pier safe, within a reasonable time frame. If the council determines that the commercial wharf or pier, because of its condition, is an immediate threat to public health and safety it may order the commercial wharf or pier closed until the necessary work to make the commercial wharf or pier safe has been performed and approved by the council. All work performed must conform to the council's management program. The council is also given the authority to develop regulations to carry out this provision and to impose administrative penalties of five thousand dollars (\$5,000) per day up to a maximum of twenty thousand dollars (\$20,000) consistent with § 46-23-7.1 where there has been a violation of the orders under this provision.

(5) Rights-of-way.

(i) The council is responsible for the designation of all public rights-of-way to the tidal water areas of the state, and shall carry on a continuing discovery of appropriate public rights-of-way to the tidal water areas of the state.

(ii) The council shall maintain a complete file of all official documents relating to the legal status of all public rights-of-way to the tidal water areas of the state.

(iii) (A) The council has the power to designate for acquisition and development, and posting, and all other functions of any other department for tidal rights-of-way and land for tidal rights-of-way, parking facilities, and other council related purposes.

(B) Further, the council has the power to develop and prescribe a standard sign to be used by the cities and towns to mark designated rights-of-way.

(iv) In conjunction with this subdivision, every state department controlling state-owned land close to or adjacent to discovered rights-of-way is authorized to set out the land, or so much of the land that may be deemed necessary for public parking.

(v) No use of land for public parking shall conflict with existing or intended use of the land, and no improvement shall be undertaken by any state agency until detailed plans have been submitted to and approved by the governing body of the local municipality.

(vi) In designating rights-of-way, the council shall consider the following matters in making its designation:

(A) Land evidence records;

(B) The exercise of domain over the parcel such as maintenance, construction, or upkeep;

(C) The payment of taxes;

(D) The creation of a dedication;

(E) Public use;

(F) Any other public record or historical evidence such as maps and street indexes;

(G) Other evidence as set out in § 42-35-10.

(vii) A determination by the council that a parcel is a right-of-way shall be decided by substantial evidence.

(viii) The council shall be notified whenever by the judgment of the governing body of a coastal municipality, a public right-of-way to tidal water areas located in such municipality has ceased to be useful to the public, and such governing body proposes an order of abandonment of such public right-of-way. Said notice shall be given not less than sixty (60) days prior to the date of such abandonment.

(6) Pre-existing residential boating facilities.

(i) The council is hereby authorized and empowered to issue assent for pre-existing residential boating facilities constructed prior to January 1, 1985. These assents may be issued for pre-existing residential boating facilities, even though such facilities do not meet current standards and policies of the council, provided, however, that the council finds that such facilities do not pose any significant risk to the coastal resources of the state of Rhode Island and do not endanger human safety.

(ii) In addition to the above criteria, the applicant shall provide clear and convincing evidence that:

(A) The facility existed in substantially the same configuration as it now exists prior to January 1, 1985;

(B) The facility is presently intact and functional; and

(C) The facility presents no significant threat to the coastal resources of the state of Rhode Island or human safety.

(iii) The applicant, to be eligible for this provision, shall apply no later than January 31, 1999.

(iv) The council is directed to develop rules and regulations necessary to implement this subdivision.

(v) It is the specific intent of this subsection to require that all pre-existing residential boating facilities constructed on January 1, 1985 or thereafter conform to this chapter and the plans, rules and regulations of the council.

(7) Lease of filled lands which were formerly tidal lands to riparian or littoral owners.

(i) Any littoral or riparian owner in this state who desires to obtain a lease from the state of Rhode Island of any filled lands adjacent to his or her upland shall apply to the council, which may make the lease. Any littoral or riparian owner who wishes to obtain a lease of filled lands must obtain pre-approval, in the form of an assent, from the council. Any lease granted by the council shall continue the public's interest in the filled lands including but not limited to the rights of navigation, fishery, and commerce. The public trust in the lands shall continue and run concurrently with the leasing of the lands by the state to private individuals, corporations, or municipalities. Upon the granting of a lease by the council, those rights consistent with the public trust and secured by the lease shall vest in the lessee. The council may approve a lease of filled lands for an initial term of up to fifty (50) years, with, or without, a single option to renew for an additional term of up to fifty (50) years.

(ii) The lessor of the lease, at any time, for cause, may by express act cancel and annul any lease previously made to the riparian owner when it determines that the use of the lands is violating the terms of the lease or is inconsistent with the public trust, and upon cancelation the lands, and rights in the land so leased, shall revert to the state.

(8) "Marinas" as defined in the coastal resources management program in effect as of June 1, 1997, are deemed to be one of the uses consistent with the public trust. Subdivision (7) is not applicable to:

(i) any riparian owner on tidal waters in this state (and any successor in interest to the owner) which has an assent issued by the council to use any land under water in front of his or her lands as a marina, which assent was in effect on June 1, 1997; (ii) any alteration, expansion, or other activity at a marina (and any successor in interest) which has an assent issued by the council, which assent was in effect on June 1, 1997; and (iii) any renewal of assent to a marina (or successor in interest), which assent was issued by the council and in effect on June 1, 1997.

(9) "Recreational boating facilities" including marinas, launching ramps, and recreational mooring areas, as defined by and properly permitted by the council, are deemed to be one of the uses consistent with the public trust. Subdivision (7) is not applicable to: (i) any riparian owner on tidal waters in this state (and any successor in interest to the owner) which has an assent issued by the council to use any land under water in front of his or her lands as a recreational boating facility; any alteration, expansion or other activity at a recreational boating facility (and any successor in interest) which has an assent issued by the council, which assent was in effect as of June 1, 1997; and (ii) any renewal of assent to a recreational

boating facility (or successor in interest), which assent was issued by the council and in effect on June 1, 1997.

46-23-6.1. Newport "cliff walk" - Public right-of-way - Legal studies.

The council is hereby directed to carry out any and all legal studies which it shall deem necessary in order to designate the Newport "cliff walk", so called, as a public right-of-way pursuant to § 46-23-6(5).

46-23-6.2. Abandonment of rights-of-way.

No city or town shall abandon a right-of-way designated as such by the council unless the council approved the abandonment.

§ 46-23-6.3. Tolling of expiration periods. – (a) Notwithstanding any other provision set forth in this chapter, all periods pertaining to the expiration of any approval or permit issued pursuant to any state statute or any regulation promulgated thereto pertaining to the development of property shall be tolled until June 30, 2015. For the purposes of this section, "tolling" means the suspension or temporary stopping of the running of the applicable permit or approval period.

(b) Said tolling need not be recorded in the land evidence records to be valid, however, a notice of the tolling must be posted in the municipal planning department and near the land evidence records.

(c) The tolling shall apply only to approvals or permits in effect on November 9, 2009 and those issued between November 9, 2009 and June 30, 2015, and shall not revive expired approvals or permits.

(d) The expiration dates for all permits and approvals issued before the tolling period began will be recalculated as of July 1, 2015 by adding thereto the number of days between November 9, 2009 and the day on which the permit or approval would otherwise have expired. The expiration dates for all permits and approvals issued during the tolling period will be recalculated as of July 1, 2015 by adding thereto the number of days between the day the permit or approval was issued and the day the permit or approval otherwise would have expired.

46-23-7. Violations.

(a) (1) In any instances wherein there is a violation of the coastal resources management program, or a violation of regulations or decisions of the council, the commissioner of coastal resources management shall have the power to order any person to cease and desist or to remedy any violation of any provisions of this chapter, or any rule, regulation, assent, order, or decision of the council whenever the commissioner of coastal resources management shall have reasonable grounds to believe that such violation has occurred.

(2) Council staff, conservation officers within the department of environment, and state and municipal police shall be empowered to issue written cease and desist orders in any instance where activity is being conducted which constitutes a violation of any provisions of this chapter, or any rule, regulation, assent, order, or decision of the council.

(3) Conservation officers within the department of environment, council staff, and state and municipal police shall have authority to apply to a court of competent jurisdiction for a warrant to enter on private land to investigate possible violations of this chapter; provided that they have reasonable grounds to believe that a violation has been committed, is being committed, or is about to be committed.

(b) Any order or notice issued pursuant to subsection (a) shall be eligible for recordation under chapter 13 of title 34, and shall be recorded in the land evidence records in the city/town wherein the property subject to the order is located, and any subsequent transferee of the property shall be responsible for complying with the requirements of the order and notice.

(c) The coastal resources management council shall discharge of record any notice filed pursuant to subsection (b) within thirty (30) days after the violation has been remedied.

46-23-7.1. Administrative penalties.

Any person who violates, or refuses or fails to obey, any notice or order issued pursuant to § 46-23-7(a); or any assent, order, or decision of the council, may be assessed an administrative penalty by the chairperson or executive director in accordance with the following:

(1) The chairperson or executive director is authorized to assess an administrative penalty of not more than two thousand five hundred dollars (\$2,500) for each violation of this section, and is authorized to assess additional penalties of not more than five hundred dollars (\$500) for each day during which this violation continues after receipt of a cease and desist order from the council pursuant to § 46-23-7(a), but in no event shall the penalties in an aggregate equal or exceed ten thousand dollars (\$10,000). Prior to the assessment of a penalty under this subdivision, the property owner or person committing the violation shall be notified by certified mail or personal service that a penalty is being assessed. The notice shall include a reference to the section of the law, rule, regulation, assent, order, or permit condition violated; a concise statement of the facts alleged to constitute the violation; a statement of the amount of the administrative penalty assessed; and a statement of the party's right to an administrative hearing.

(2) The party shall have twenty-one (21) days from receipt of the notice within which to deliver to the council a written request for a hearing. This request shall specify in detail the statements contested by the party. The executive director shall designate a person to act as hearing officer. If no hearing is requested, then after the expiration of the twenty-one (21) day period, the council shall issue a final order assessing the penalty specified in the notice. The penalty is due when the final order is issued. If the party shall request a hearing, any additional daily penalty shall not commence to accrue until the council issues a final order.

(3) If a violation is found to have occurred, the council may issue a final order assessing not more than the amount of the penalty specified in the notice. The penalty is due when the final order is issued.

(4) The party may within thirty (30) days appeal the final order, of fine assessed by the council to the superior court which shall hear the assessment of the fine de novo.

46-23-7.2. Proceedings for enforcement.

The superior court shall have jurisdiction to enforce the provisions of this chapter, the coastal resource management program, or any rule, regulation, assent, or order issued pursuant thereto. Proceedings under this section may follow the course of equity, and shall be instituted and prosecuted in the name of and at the direction of the chairperson and council by the attorney general or counsel designated by the council. Proceedings provided in this section shall be in addition to, and may be utilized in lieu of, other administrative or judicial proceedings authorized by this chapter.

46-23-7.3. Criminal penalties.

Any person who knowingly violates any provision of this chapter, the coastal resources management program, or any rule, regulation, assent, or order shall be guilty of a misdemeanor, and, upon conviction

thereof shall be fined not more than five hundred dollars (\$500) or by imprisonment of not more than three (3) months or both; and each day the violation is continued or repeated shall be deemed a separate offense.

46-23-7.4. Penalty for blocking or posting of rights-of-way.

Any person who shall post or block any tidal water, public right-of-way, as designated by the council, shall be punished by a fine not exceeding five hundred dollars (\$500) or by imprisonment for not more than three (3) months or both; and each day the posting or blocking continues or is repeated shall be deemed a separate offense. The chairperson of the council, through council's legal counsel or the attorney general, may apply to any court of competent jurisdiction for an injunction to prevent the unlawful posting or blocking of any tidal water, public right-of-way.

46-23-7.5. Prosecution of criminal violations.

The chairperson and anyone designated by the chairperson, without being required to enter into any recognizance or to give surety for cost, may institute proceedings in the name of the state. It shall be the duty of the attorney general and/or the solicitor of the city or town in which the alleged violation has occurred to conduct the prosecution of all the proceedings. The chairperson may delegate his or her authority to bring prosecution by complaint and warrant to any law enforcement officials authorized by law to bring complaints for the issuance of search or arrest warrants pursuant to chapters 5 and 6 of title 12.

46-23-8. Gifts, grants, and donations.

The council is authorized to receive any gifts, grants, or donations made for any of the purposes of its program, which shall be deposited as general revenues, and to disburse and administer the gifts, grants, or donations amounts appropriated in accordance with the terms thereof. The council is authorized to receive any sums provided by an applicant for use by the council in its hearing process, which shall be deposited as general revenues, and to disburse and administer the general revenue amounts appropriated in accordance with the rules and regulations promulgated by the council.

46-23-9. Subpoena.

The council is hereby authorized and empowered to summon witnesses and issue subpoenas in substantially the following form:

Sc.

To _____ of _____ greeting:

You are hereby required, in the name of the state of Rhode Island and Providence Plantations, to make your appearance before the commission on _____ in the _____ city of _____ on the _____ day of _____ to give evidence of what you know relative to a matter upon investigation by the commission on _____ and produce and then and there have and give the following:

Hereof fail not, as you will answer to default under the penalty of the law in that behalf made and provided.

Dated at _____ the _____ day of _____ in the year _____.

46-23-10. Cooperation of departments.

All other departments and agencies and bodies of state government are hereby authorized and directed to cooperate with and furnish such information as the council shall require.

46-23-11. Rules and regulations.

The rules and regulations promulgated by the council shall be subject to the Administrative Procedures Act.

46-23-12. Representation from coastal communities.

Upon the expiration of a term of a member appointed by the governor, as an appointed or elected official of local government from a coastal municipality as set out in § 46-23-2, the governor shall appoint an appointed or elected official of a coastal municipality which, at the time of the governor's appointment, has no appointed or ex officio representation on the council.

46-23-13. Application and hearing fees.

The council shall be authorized to establish reasonable fees for applications and hearings. All fees collected by the council, including fees collected for leases, shall be deposited as general revenues. The state controller is hereby authorized and directed to draw his or her orders upon the general treasurer for payment of such sum or sums as may be necessary from time to time and upon receipt by him or her of duly authenticated vouchers presented by the commissioner of coastal resources management.

46-23-14. Expert testimony.

The council shall be authorized to engage its own expert and outside consultants, and the council shall be empowered to use that testimony in making its decisions.

46-23-15. Federal grants and interstate cooperation.

The council is authorized to accept any federal grants. It is further given the power to administer land and water use regulations as necessary to fulfill their responsibilities under the Federal Coastal Zone Management Act, 16 U.S.C. § 1451 et seq., and to acquire fee simple and less than fee simple interests under any federal or state program. The council is authorized to coordinate and cooperate with other states in furtherance of its purposes. The council may expend those grants and appropriations. The coastal resources management council for the purposes of the federal Coastal Zone Management Act, 16 U.S.C. § 1451 et seq., is the coastal zone agency under §§ 301 through 313 and §§ 318 and 6217 of said act.

46-23-15.1. Coordination of harbor safety and enforcement patrols.

Coastal municipalities which share a common boundary along their public waters may enter into a binding memorandum of agreement allowing for harbor masters and other officials charged with enforcement of harbor management plan harbor ordinances from one coastal municipality to enforce the harbor ordinances of the bordering coastal municipality upon the public waters of the bordering coastal municipality when the coastal municipalities have harbor management plans approved by the coastal resources management council and the memorandum of agreement is approved by the respective town or city councils. This binding memorandum of agreement shall specify how each coastal municipality is to receive any fines collected under this reciprocal enforcement agreement and the jurisdiction in which any disputes arising out of this reciprocal enforcement agreement shall be litigated.

46-23-16. Length of permits, licenses, and easements.

The council is authorized to grant permits, licenses, and easements for any term of years or in perpetuity. Permits, licenses, or easements which are issued by the council for the filling of the submerged or submersible lands of the state of Rhode Island remain subject to the public trust, and no title is conveyed by such documents. All such permits, licenses, and easements shall clearly state that no title is being conveyed. Permits, licenses or easements issued by the council are valid only with the conditions and stipulation under which they are granted and imply no guarantee of renewal. The initial application or an application for renewal may be subject to denial or modification. If an application is granted, said permit, license and easement may be subject to revocation and/or modification for failure to comply with the conditions and stipulations under which the same was issued or for other good cause. The division of coastal resources of the department of the environment shall transfer all of the records and files of the former division of harbors and rivers to the council.

46-23-17. Annual progress report on rights-of-way.

Within ninety (90) days after the end of each fiscal year, the council shall submit a written progress report on the development of public rights-of-way to the tidal water areas of the state, to the state planning council, the department of environmental management, and the joint committee on the environment, for review, evaluation, and recommendation of the program's suitability, relevance to the recreation element of the state guide plan, and impact on the natural resources of the state. The report shall also provide detailed records of expenditures and a proposed schedule of future projects.

46-23-18. Prohibited activities.

(a) No person, either as principal, agent or servant nor any firm, corporation, or any other entity shall, without a permit issued by the coastal resources management council, construct a marina within two thousand feet (2000') of a shellfish management area as defined by rules and regulations of the department of environmental management. Such permit shall include any permit required under subsection (b).

(b) No person, either as principal, agent, or servant, or any firm, corporation or any other entity, shall, within the tidal waters of the state, conduct or cause to conduct dredging, transportation and/or disposal of dredge materials without a permit issued by the coastal resources management council, a water quality certification issued by the department of environmental management pursuant to chapter 12 of this title and any permit required by the army corps of engineers. In addition, no person, either as principal, agent, or servant, nor any firm, corporation or any other entity, shall dispose of dredge materials other than in tidal waters without any permit, approval or certification that may otherwise be required.

46-23-18.1. Permitting.

(a) Any person, either as principal, agent, or servant, or any firm, corporation or any other entity desiring to conduct any activity or activities specified in § 46-23-18 shall file an application for a permit with the coastal resources management council upon forms furnished by coastal resources management council.

(b) A hearing shall be held on the application within thirty (30) days of filing.

(c) The applicant shall bear the burden of proving that the activity or activities specified in the application will cause no significant adverse impact upon the environment or natural resources of the state, and the coastal resources management council shall be empowered to deny the application if the applicant does not demonstrate, in addition to other requirements of this chapter, that the activity or activities will not (i) significantly adversely affect any shellfish management area as designated by the department of environmental management or the marine fisheries council; (ii) be in a significant conflict

with the marine ecology within or adjacent to the state's territorial waters, or (iii) significantly harm or destroy existing fishing grounds.

(d) With respect to an application seeking a permit from the coastal resources management council to conduct or cause to conduct dredging, transportation and/or disposal of dredge material, the applicant shall also satisfy the council that the proposal in the application is consistent with a comprehensive program developed pursuant to § 46-23-6(1)(ii)(H).

(e) In determining whether an applicant has met the burden of proof under subsection (c), the coastal resources management council shall apply standards that conform with the federal environmental protection agency's applicable standards and guidelines for the management of dredge materials, including but not limited to, the federal environmental protection agency's rules, regulations and guidelines for deviating from said standards.

(f) The applicant shall, at least three (3) days before commencing any dredging, give written notice to the coastal resources management council of the intent to commence the activities specified in the permit.

46-23-18.2. Rules and regulations.

The council, upon recommendation by the coastal resources advisory committee, shall issue reasonable rules and regulations governing the dredging, transporting and disposal of all dredge materials in accordance with this chapter.

46-23-18.3. Sites for disposal of spoil from dredge operations, selection.

(a) The council, upon recommendation of the coastal resources advisory committee, on or before the first day of January, 1999 and periodically thereafter as necessary, shall consistent with the comprehensive programs required in § 46-23-6(1)(ii)(H) identify and establish one or more in-water disposal sites to be used for the purpose of disposal of dredge materials from marinas and yacht clubs.

(b) The council, upon recommendation of the coastal resources advisory committee, on or before the first day of January, 2002 and periodically thereafter as necessary, shall consistent with the comprehensive programs required in § 46-23-6(1)(ii)(H) identify and establish one or more in-water disposal sites to be used for the purpose of disposal of dredge materials from all sources not otherwise delineated in (a) above.

46-23-18.4. Enforcement.

The provisions of §§ 46-23-18 through 46-23-18.3 shall be enforced by the coastal resources management council. Nothing herein shall be deemed to abrogate the department of environmental management's authority to enforce its water quality standards adopted pursuant to § 46-12-3(7) or (24).

46-23-18.5. Fees for disposal.

The council is authorized to impose a fee of not less than eleven dollars and sixty-five cents (\$11.65) per cubic yard for the disposal of dredge materials at the sites established by the council pursuant to § 46-23-18.3, with eleven dollars and sixty-five cents (\$11.65) being deposited into the general fund. The amount of the fee established by the council pursuant to the section shall be reviewed by the council on an annual basis and revised as the council deems necessary, but in no event shall the fee be set at an amount less than eleven dollars and sixty-five cents (\$11.65) per cubic yard of material.

46-23-18.6. Coastal Resources Management Council Dredge Fund.

There is hereby created a separate fund to be held by the coastal resources management council to be known as the dredge fund. Any amount charged above the eleven dollars and sixty-five cents (\$11.65) must be deposited into the fund and shall not be deposited into the general fund of the state, but shall be kept by the general treasurer of the state in a separate fund for the coastal resources management council, and shall be paid out by the treasurer upon the order of the council, without the necessity of appropriation or re-appropriation by the general assembly. Funds must be used to create additional dredging and disposal options.

46-23-19. [Repealed.]

46-23-20. Administrative hearings.

All contested cases, all contested enforcement proceedings, and all contested administrative fines shall be heard by the administrative hearing officers, or by subcommittees as provided in § 46-23-20.1, pursuant to the regulations promulgated by the council, provided, however, that no proceeding and hearing prior to the appointment of the hearing officers shall be subject to the provisions of this section. Notwithstanding the foregoing, the commissioner of coastal resources management shall be authorized, in his or her discretion, to resolve contested licensing and enforcement proceedings through informal disposition pursuant to regulations promulgated by the council.

46-23-20.1. Hearing officers - Appointment - Compensation - Subcommittee.

(a) The governor, with the advice and consent of the senate, shall appoint two (2) hearing officers who shall be attorneys-at-law, who, prior to their appointment, shall have practiced law for a period of not less than five (5) years for a term of five (5) years, provided, however, that the initial appointments shall be as follows: One hearing officer shall be appointed for a term of three (3) years and one hearing officer shall be appointed for a term of five (5) years. The appointees shall be addressed as hearing officers.

(b) The governor shall designate one of the hearing officers as chief hearing officer. The hearing officers shall hear proceedings as provided by this section, and the council, with the assistance of the chief hearing officer, may promulgate such rules and regulations as shall be necessary or desirable to effect the purposes of this section.

(c) A hearing officer shall be devoted full time to these administrative duties, and shall not otherwise practice law while holding office nor be a partner nor an associate of any person in the practice of law.

(d) Compensation for hearing officers shall be determined by the unclassified pay board.

(e) Whenever the chairperson of the coastal resources management council or, in the absence of the chairperson, the commissioner of coastal resources makes a finding that the hearing officers are otherwise engaged and unable to hear a matter in a timely fashion, he or she may appoint a subcommittee which will act as hearing officers in any contested case coming before the council. The subcommittee shall consist of at least one member, provided, however, that in all contested cases an additional member shall be a resident of the coastal community affected. The city or town council of each coastal community shall, at the beginning of its term of office, appoint a resident of that city or town to serve as an alternate member of the aforesaid subcommittee should there be no existing member of the coastal resources management council from that city or town available to serve on the subcommittee. Any member of the subcommittee actively engaged in hearing a case shall continue to hear the case, even though his or her term may have expired, until the case is concluded and a vote taken thereon. Hearings before subcommittees shall be subject to all rules of practice and procedure as govern hearings before hearing officers.

46-23-20.2. Clerk.

The commissioner of coastal resources or his or her designee shall serve as clerk to the hearing officers. The clerk shall have general charge of the office, keep a full record of proceedings, file and preserve all documents and papers, prepare such papers and notices as may be required, and perform such other duties as required. The commissioner shall have the power to issue subpoenas for witnesses and documents and to administer oaths in all cases before any hearing officer or pertaining to the duties of his or her office.

46-23-20.3. Prehearing procedure.

(a) Prior to the commencement of any hearing, the hearing officer may in his or her discretion direct the parties or their attorneys to appear before him or her for such conferences as shall be necessary. At the conferences, the hearing officer may order any party to file, prior to the commencement of any formal hearing, exhibits that the party intends to use in the hearing, and the names and addresses of witnesses that the party intends to produce in its direct case, together with a short statement of the testimony of each witness. Following entry of an order, a party shall not be permitted, except in the discretion of the hearing officer, to introduce into evidence, in the party's direct case, exhibits which are not filed in accordance with the order. At the conference, the hearing officer may designate a date before which he or she requires any party to specify what issues are conceded, and further proof of conceded issues shall not be required. The hearing officer shall also require the parties to simplify the issues, to consider admissions of fact and of documents which will avoid unnecessary proof, and to limit the number of expert witnesses. The hearing officer shall enter an order reciting the concessions and agreements made by the parties, and shall enter an order on such other matters as are pertinent to the conduct of the hearing, and unless modified, the hearing shall be conducted by the order.

(b) The hearing officer may also order the parties to file, prior to the commencement of any hearing, the testimony of any or all of their respective witnesses, and to submit the testimony to the hearing officer and the opposing party or the opposing counsel by such date as the hearing officer shall determine. The witness shall testify under oath, and all of the testimony shall be in a question and answer format. Save for good cause shown, said testimony shall be the direct examination of the witness, provided, however, that the witness shall be available at the hearing for cross-examination by the opposing party or opposing counsel.

(c) The council, with the assistance of the chief hearing officer, shall promulgate, by regulation, such other prehearing procedures and/or hearing procedures as deemed necessary, including the use of portions of the superior court civil rules of discovery where such are not inconsistent with the applicable provisions of the Administrative Procedures Act, chapter 35 of title 42.

46-23-20.4. Hearings - Orders.

(a) Subject to the provisions of this chapter, every hearing for the adjudication of a violation or for a contested matter shall be held before a hearing officer or a subcommittee. The chief hearing officer shall assign a hearing officer to each matter not assigned to a subcommittee. After due consideration of the evidence and arguments, the hearing officer shall make written proposed findings of fact and proposed conclusions of law which shall be made public when submitted to the council for review. The council may, in its discretion, adopt, modify, or reject the findings of fact and/or conclusions of law provided, however, that any modification or rejection of the proposed findings of fact or conclusions of law shall be in writing and shall state the rationales therefore.

(b) The director of the department of the environment and the coastal resources management council shall promulgate such rules and regulations, not inconsistent with law, as to assure uniformity of proceedings as applicable.

46-23-20.5. Ex parte consultations.

Council members shall have no communication directly or indirectly, with a hearing officer relating to any issue of fact or of law on any matter then pending before the hearing officer.

46-23-20.6. Oaths - Subpoenas - Powers of hearing officers.

The hearing officers are hereby severally authorized and empowered to administer oaths, and the hearing officers, in all cases of every nature pending before them, are hereby authorized and empowered to summon and examine witnesses and to compel the production and examination of papers, books, accounts, documents, records, certificates and other legal evidence that may be necessary or proper for the determination and decision of any question before or the discharge of any duty required by law of the hearing officer. All subpoenas and subpoena duces tecum shall be signed by a hearing officer or the commissioner of coastal resources, and shall be served as subpoenas are served in civil cases in the superior court; and witnesses so subpoenaed shall be entitled to the same fees for attendance and travel as are provided for witnesses in civil cases in the superior court. In cases of contumacy or refusal to obey the command of the subpoena so issued, the superior court shall have jurisdiction upon application of the council with proof by affidavit of the fact, to issue a rule or order returnable, in not less than two (2) nor more than five (5) days, directing the person to show cause why he or she should not be adjudged in contempt. Upon return of such order, the justice, before whom the matter is brought for hearing, shall examine under oath the person, and the person shall be given an opportunity to be heard, and if the justice shall determine that the person has refused without reasonable cause or legal excuse to be examined or to answer legal or pertinent questions, he or she may impose a fine upon the offender or forthwith commit the offender to the adult correctional institution, there to remain until he or she submits to do the act which he or she was so required to do, or is discharged according to law.

46-23-21. Notice of permit - Recordation.

A notice of permit shall be eligible for recordation under chapter 13 of title 34 as determined by the executive director, and shall be recorded at the expense of the applicant in the land evidence records of the city or town where the property subject to permit is located, and any subsequent transferee of the property shall be responsible for complying with the terms and conditions of the permit. The clerk of the various cities and towns shall record any orders, findings, or decisions of the council at no expense to the council.

46-23-22. Solid waste disposal licenses - Hearings.

The chairperson of the coastal resources management council and the commissioner of the environmental protection branch of the department of environmental management shall coordinate concurrent hearings on solid waste disposal license applications, provided, however, that the chairperson and the commissioner of the environmental protection branch of the department of the environment may designate a hearing officer or subcommittee to hear all matters pertaining to the application and, provided further, that the hearing officer may be from the department of the environment, the coastal resources management council hearing officer, a subcommittee, or an ad hoc hearing officer. The commissioner of coastal resources management with the approval of the chairperson may waive jurisdiction in those instances where the commissioner finds that there is no substantive coastal resources issue or that another agency or branch has adjudicated or addressed the issue.

46-23-23. Municipal comprehension plan consideration.

The coastal resources management council shall conform to the requirements of the Comprehensive Planning and Land Use Regulation Act, § 45-22.2.

46-23-24. Lien on property.

The executive director may record the notice of fee or final order of fine as a lien on the subject property in the land evidence records of the town or city in which said property is located. Recordation of said fee or final order of fine shall be the only manner by which said lien may be perfected against the subject property.

46-23-25. Issuance of beach vehicle registration permits. – (a) The coastal resources management council may issue beach vehicle registration permits in accordance with § 31-8-1.1 of the general laws and adopt regulations that the council deems necessary to carry out the provisions of this section. The council may appoint responsible citizens or corporations of the state, engaged in operating sporting goods stores to act as agents with authority to issue permits in the manner and under the conditions as set forth below. Before an appointment shall occur, that citizen or corporation of the state shall deliver to the council a bond with a surety company authorized to do business in the state of Rhode Island. The requirements and conditions of the bond shall be established by the regulations.

(b) Any person or corporation appointed by the council as provided in section (a) above shall, upon the application of any person entitled to receive a permit under this chapter and upon payment of the specified permit fee, register and issue to the person a beach vehicle registration permit in the form prescribed and furnished by the council. The permit shall bear the name, place of residence, and signature of the registrant, and the vehicle make, model, year, and license plate number and shall authorize the registrant to own and operate a beach vehicle in the state of Rhode Island during those seasons and in those manners and according to those conditions as shall be provided by regulations established by the council.

Part One.

**Authorities
and
Procedures**

Section 100.
Alterations and Activities That Require an Assent from the Coastal Resources Management Council

100.1. Tidal Waters, Shoreline Features, and Contiguous Areas

A. A Council Assent is required for any alteration or activity that are proposed for (1) tidal waters within the territorial seas (including coastal ponds, some of which are not tidal but which are coastal waters associated with a barrier beach system, and are physiographical features); (2) shoreline features; and (3) areas contiguous to shoreline features. Contiguous areas include all lands and waters directly adjoining shoreline features that extend inland two hundred (200) feet from the inland border of that shoreline feature. A Council Assent is required for any alteration or activity any portion of which extends onto the most inland shoreline feature or its 200 foot contiguous area, Representative activities are listed in Table 1, Table 1A, and Table 1B.

Any alteration or activities as defined in this section must have an assent card posted and have a copy of the assent available at the site where the intended activity or alteration is to take place. Failure to post assent card and/or have a copy of the Assent available constitutes a violation under this program.

B. Council Assents are also required for any other activity or alteration not listed in Table 1, Table 1A, or Table 1B but which (1) has a reasonable probability of conflicting with the Council's goals and its management plans or programs, and/or (2) has the potential to damage the environment of the coastal region.

C. Tidal waters and coastal ponds have been assigned to one of six use categories. Findings, goals, and policies pertaining to each water use category are found in Part Two of this document. Large-scale maps showing the use categories are available in coastal town halls and at the Council's offices. The precise delineation of the seaward boundaries of the state's territorial sea must be clarified through special state legislation. Until that time, the Council shall use as a guide-line the boundaries shown in Figure 1. The land-ward boundary of the territorial sea is the mean high water mark along the Rhode Island coast.

D. Shoreline features together encompass the entire shore and are assigned to the following categories:

- 1) Coastal beaches and dunes;
- 2) Barrier beaches;
- 3) Coastal wetlands;
- 4) Coastal cliffs, bluffs, and banks;
- 5) Rocky shores; and,
- 6) Manmade shorelines.

The prerequisites, standards, and Category B requirements for on-land activities listed in Sections 300.1 through 300.16 and in Section 330 and 335 of this document apply to shoreline features, their 200-foot contiguous area, and inland activities subject to Sections 320 and 325.

Section 100.2
Inland of Shoreline Features and Contiguous Areas

A. The Council reserves the right to review the following categories of alterations and activities proposed inland of shoreline features and their contiguous areas:

- 1) Power-generating plants (excluding facilities of less than a 40-megawatt capacity);
- 2) Petroleum storage facilities (excluding those of less than a 2,400-barrel capacity);
- 3) Chemical or petroleum processing;
- 4) Minerals extraction;
- 5) Sewage treatment and disposal facilities (excluding individual sewage disposal systems);
- 6) Solid waste disposal facilities; and,
- 7) Desalination plants.

Where, on the basis of a review, it is found that a proposal has a reasonable probability of conflict with adopted resources management plans or programs, and/or has the potential to damage the coastal environment, the Council shall require that an Assent be obtained. Inland activities and alterations that may be subject to Council permitting are defined, and Council findings, goals, policies, and regulations are set forth, in Section 320.

Section 100.3 Critical Coastal Areas

A. Watersheds of Poorly Flushed Estuaries

1. The Council reserves the right to review any activity proposed within the watersheds of poorly flushed estuaries and critical coastal areas. Therefore the Council has developed and adopted Special Area Management Plans in order to address the specific environmental concerns of those priority management areas. In addition to those activities captured under the Council's management program, activities within Special Area Management Plans (as delineated by the poorly flushed estuary boundary on the attached RICRMP maps, and on the maps accompanying each SAM plan) that have a reasonable probability of conflicting with the goals of this plan must submit an application for an assent. These activities are:

- a) Subdivisions, cooperatives, and other multi-ownership facilities [of six (6) units or more];
- b) Any structure serviced by an on-site sewage disposal system servicing 2,000 gallons or more per day;
- c) Any activity which results in the creation of 40,000 sq. ft. or more of impervious surface;
- d) Construction or extension of municipal or industrial sewage facilities or systems (not connections to individual homes); and,
- e) Water distribution systems or extensions of supply lines (not connections to individual homes).

Applicants proposing one or more of these activities shall apply to the Council. For more detailed mapping of the poorly flushed estuaries and their adjacent land use areas, as well as policies and recommendations pertaining to these areas, please see the appropriate Special Area Management Plan.

Section 100.4 Freshwater Wetlands in the Vicinity of the Coast

A. Applicability

1. A Council Assent is required for any project or activity which may alter the character of any freshwater wetland in the vicinity of the coast. Applicants are referred to the CRMC's Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast (i.e., the Rules) for specific programmatic requirements.
2. The Rules apply to all freshwater wetlands within the council's jurisdiction, the jurisdictional resource areas which are area(s) of land within fifty feet (50'), riverbanks, and flood plains, and, all activities which could alter the character of any freshwater wetland or part thereof in the vicinity of the coast.
3. The authority of the CRMC to apply the Rules to freshwater wetlands in the vicinity of the coast, area(s) of land within fifty (50) feet, riverbanks, and flood plains, is that which is necessary to carry out the effective management of the resource.
4. Projects or activities subject to the CRMC's jurisdiction due to the nature of the activity, its proximity to any coastal feature, or its location within the boundaries of the Narrow River or Salt Ponds watersheds (as defined in the Narrow River and Salt Ponds Special Area Management Plans (SAMP)), and the proposed project is also subject to these Rules, the CRMC shall apply the provisions of the RICRMP and any applicable SAMP in addition to these Rules. Where these separate regulatory programs may conflict, the more stringent definition, policy, standard and/or prohibition shall apply.

B. Definitions

1. Incorporated herein is Rule 5.40 of the Council's Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast, where freshwater wetland means the following:
 - (a) Bog, pond, marsh, swamp, river, area(s) subject to flooding, area(s) subject to storm flowage, floodway, flowing body of water, stream, intermittent stream, submergent and emergent plant communities, special aquatic sites, and shrub and forested wetland located in the vicinity of the coast;
 - (b) Those areas located in the vicinity of the coast, that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; and
 - (c) Any or all wetlands located in the vicinity of the coast, created as part of, or the result of, any activity permitted or directed by the CRMC or DEM after July 16, 1971 including, but not limited to: restored wetlands; value replacement wetlands created to compensate for wetland loss such as flood plain excavations; biofiltration areas; and any wetlands created, altered or modified after July 16, 1971.
2. Coastal wetlands as defined in RICRMP Section 210.3 are incorporated herein by reference.
3. Tributary wetlands are freshwater wetlands that are connected via a watercourse to a coastal wetland and/or tidal waters. A tributary is any flowing body of water or watercourse which provides intermittent or perennial flow to tidal waters, coastal ponds, coastal wetlands or other down-gradient

watercourses which eventually or immediately discharge to tidal waters, coastal ponds or coastal wetlands.

C. Findings

1. Incorporating herein by reference Rule 10.02.B of the Council's *Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast*, the following constitute the functions and values of freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains:

(a) Wildlife and Wildlife Habitat

Freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains are important areas for the production and diversity of wildlife. Wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains provide habitat for individual species and communities of animals and plants. Animals include both game and non-game species, which may be either obligate or facultative, and which may be permanent residents, seasonal or transient in nature. Wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains serve as travel corridors, nesting sites, feeding sites, resting sites, nursery and/or brood rearing sites, escape cover, and seasonal breeding, migration, and over-wintering habitat for wildlife. Wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains provide critical habitat for some plant and animal species, and provide habitat for rare animal and rare plant species.

(b) Recreation and Aesthetics

Freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains provide and potentially provide a variety of important active and passive recreational and aesthetic values to the general populace. Such active and passive recreational values include, but are not limited to activities such as; hunting, fishing, trapping, cross-country skiing, ice skating, boating, waterskiing, canoeing, camping, swimming, bicycling, hiking/walking, horseback riding, harvesting of natural foods or plant materials, bird watching, education and nature studies or other animal observations and photography. Aesthetic values include, but are not limited to, the wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains visual, aural and cultural qualities such as its prominence as a distinct feature in the local area, including its prominence as open space; whether the wetland, area of land within fifty (50) feet, riverbank, or flood plain is a rare type; whether the wetland, area of land within fifty (50) feet, riverbank, or flood plain actually maintains or provides suitable habitat for any rare animal or rare plant species; whether the wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains has any outstanding or uncommon geomorphologic features; and whether the wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains contains archaeological evidence or historic significance.

(c) Flood Protection

Freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains protect life and/or property from flooding and flood flows by storing, retaining, metering out, and otherwise controlling flood waters from storm events. Further, wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains control the damaging effects of flood flows by dissipating erosive forces, providing frictional resistance to flood flows, and providing shoreline anchoring values.

(d) Surface Water and Groundwater

Freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains provide and/or maintain surface and/or groundwater supplies by acting as a recharge or discharge area, or in

the case of some ponds, acting as surface water reservoirs. While groundwater recharge and discharge functions and values may vary seasonally, a freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains may, either individually or cumulatively, be an important factor in replenishing ground and surface water supplies, maintaining stream flows, transporting surface waters, and storing or metering out surface waters and/or groundwater during seasons or periods of droughts.

(e) Water Quality

Freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains protect and/or maintain important water quality functions and values by nutrient retention or removal; pollution filtration; sediment removal; oxygen production; turbidity reduction; maintenance or modification of stream flow; temperature and oxygen regimes in both flowing and surface water bodies, and providing and maintaining safe drinking water supplies.

2. The functions and values herein listed further the goals and objectives of the Council's management programs for the protection and management of coastal resources.

D. Policies

1. It is the policy of the Council to prohibit the alteration, filling, removing or grading of any tributary or tributary wetland. In all cases the precise boundary of the freshwater wetland shall be determined through a field inspection.

E. Prerequisites

1. A water quality certificate from the Department of Environmental Management shall be a prerequisite for any application to alter pursuant to section 9.05 of the aforementioned rules and regulations.

F. Prohibitions

1. Filling, removing, or grading (RICRMP, Section 300.2) is prohibited on any tributary or tributary wetland. Any activity not prohibited herein shall be evaluated against the Council's Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast. However, the following exceptions may be permitted by the Council:
 - (a) The fifty (50) foot wetland perimeter and river bank wetland areas outside the wetland "edge" (RIFWWA, Section 2-1-20 (d) and (g)) shall not be considered part of the wetland under this section.
 - (b) Filling, removing, or grading of freshwater wetlands, excluding areas regulated as coastal wetlands (RICRMP, Section 210.3) may receive relief from this prohibition in instances where filling is required to access otherwise buildable land and when no other reasonable alternatives for access exist and when the applicant has satisfied the variance burdens of proof set forth in Section 120 of the RICRMP. Buildable land shall be defined as a land area which satisfies all federal, state, and municipal requirements for the intended development. To be defined as buildable land, the intended development must also satisfy the requirements in applicable special area management plans and meet all of the Department of Environmental Management's regulations and requirements for ISDS in "Critical Resource Areas." In cases where the Council approves filling of a freshwater wetland in order to access otherwise buildable land, the applicant shall be subject to the following requirements:

- (i) The applicant shall be required to mitigate the area of wetland lost on a 2 to 1 (2:1) area basis;
- (ii) The wetland that is replaced shall be consistent with that which was filled;
- (iii) The mitigation, when feasible, shall take place on-site and in an area which is hydrologically connected to the impacted wetland. When not feasible the Council shall consider other viable alternatives, including increased mitigation ratios;
- (iv) Setback and buffer requirements shall be required for the wetland replacement area;
- (v) Enhancement of existing wetland shall not be an acceptable form of mitigation under this section;
- (vi) When applicable, all wetland replacement projects will require the approval of the Rhode Island Department of Environmental Management, Division of Freshwater Wetlands; and,
- (vii) When applicable, the applicant shall concurrently submit applications to the RIDEM and to the CRMC so that a concurrent review of the proposed activities can occur.

Table 1. Review Categories and Prohibited Activities in Tidal Waters and on Adjacent Shoreline Features (Water Type Matrices)

Review categories for activities within the 200-foot area contiguous to shoreline features are listed in Table 1A. All Category B activities and starred (*) Category A activities are put out to public notice. Maintenance of existing structures is treated in Section 300.14. Letter codes are as follows:

A - Category A Assent required;

B - Category B Assent required;

P - Prohibited; and

n/a - Not applicable.

Footnotes for Table 1 (Water Type Matrices)

¹ See definitions in Section 300.2(A) for differentiation between Category A and B reviews.

² Municipal sewer lines are reviewed as Category B.

³ Utility lines are reviewed as Category B.

⁴ See Section 210.3(C)6; the review categories shown here for Type 3, 4, 5, and 6 waters apply to wetlands designated for preservation.

⁵ For residential docks, piers, floats see Section 300.4.C.4 for review procedures.

⁶ See Section 200.2.C.2 for pre-existing marinas in Type 2 Waters.

⁷ Category A review for pre-existing marinas in Type 2 waters (See Section 300.9.A.1); Category B review for residential boating facilities in Type 2 waters (See Section 300.9.E.7).

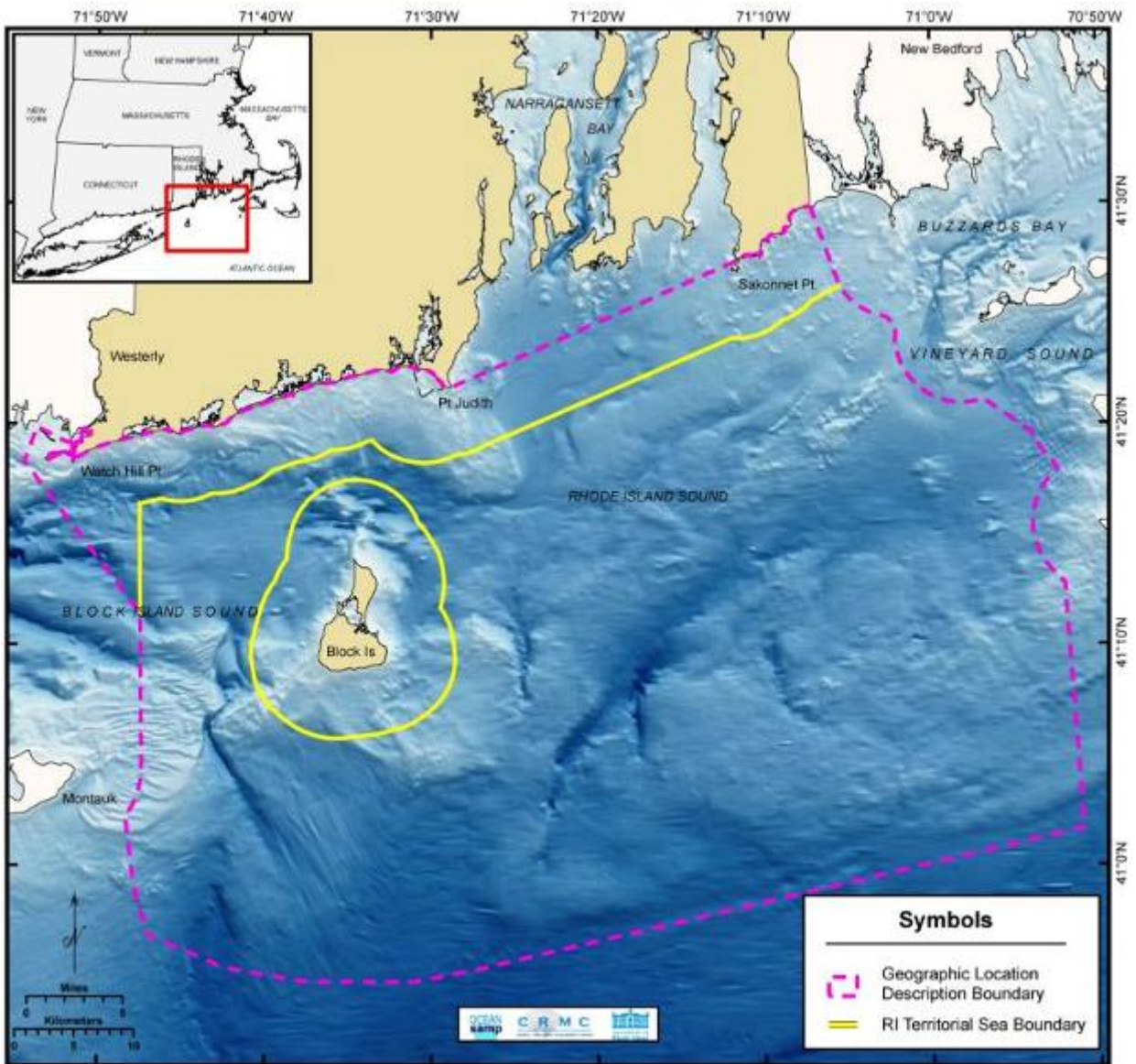
⁸ Structural shoreline protection facilities may only be permitted to protect historic structures which are currently listed in the National Register of Historic Places. Additionally, the proposal must meet all applicable standards contained within in Section 300.7.

⁹ See Section 300.4.D.6

¹⁰ Where an activity substantially detracts from or interferes with the priority uses of Type 6 Waters, as specified in Section 200.6, the Council may prohibit such activity.

¹¹ Public boat launching ramps are permissible in Type 2 waters in accordance with Section 200.2.C. Private boat launching ramps may be permitted only when in conformance with Section 300.4.D.6.

Figure 1. Rhode Island's Territorial Sea and Geographic Location Description (GLD) boundary



Rhode Island Coastal Resources Management Program

Type 1 Waters	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	P	P	A ¹	A ¹	P	P	P	A ¹	B
Residential Structures	P	P	P	P	A	P	P	P	P	B
Commercial/Industrial Structures	P	P	P	P	B	P	P	P	P	P
Recreational Structures	P	P	P	P	B	P	P	P	B	B
Recreational Mooring Areas	P	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	P	P	P	P	P	P	P	P	P	P
Launching Ramps*	P	P	P	P	P	P	P	P	P	P
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	P	P	P	P	P	P	P	P	P	P
Mooring of Houseboats	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	P	P	P	P ²	B	P	P	P	P	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	P	B
Point Discharges - Runoff	B	A	A	A	A	A	A	A	A	A
Point Discharges - Other	P	P	P	P	B	P	P	P	P	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	P	P	P	P	P	P	P	P	B	B ⁸
Energy-related Activities/Structures	P	P	P	P ³	B	P	P	P	B	B
Dredging - Improvement	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	P	B	B	B	P	P	P	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	P	P	P	P	B	P	P	P	B	B

Rhode Island Coastal Resources Management Program

Type 2 Waters	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	P	P	A ¹	A ¹	P	P	P	A ¹	B
Residential Structures	P	P	P	P	A	P	P	P	A	B
Commercial/Industrial Structures	P	P	P	P	B	P	P	P	B	P
Recreational Structures	P	P	P	P	B	P	P	P	B	B
Recreational Mooring Areas	B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	P ⁶	P	P	P	P	P	P	P	P	P
Launching Ramps*	P/B ¹¹	P	P	P	P	P	P	P	B ⁹	P
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	A/B ⁵	B	P	P	B	B	B	B	B	B
Mooring of Houseboats	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	P	P	P	P ²	B	P	P	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	P	B
Point Discharges - Runoff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Other	B	P	P	P	B	P	P	P	P	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	B ⁶	B	P	P	P	P	B	B	B	B
Energy-related Activities/Structures	B	P	P	P ³	B	P	P	P	B	B
Dredging - Improvement	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	A/B ⁷	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	P	B	B	B	P	P	B	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	P ⁶	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	B	P	P	P	B	P	P	P	B	B

Rhode Island Coastal Resources Management Program

Type 3 Waters	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	B	P	A ¹	A ¹	P	P	B	A ¹	B
Residential Structures	P	P	P	P	A	P	P	P	A	B
Commercial/Industrial Structures	B	B	P	P	B	P	B	B	B	B
Recreational Structures	B	B	P	P	B	P	B	B	B	B
Recreational Mooring Areas	B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	B	B	P	P	B	P	B	B	B	B
Launching Ramps*	B	B	P	B	B	P	B	B	B	B
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	A/B ⁵	A	P	P	A	A	A	A	A	B
Mooring of Houseboats	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	P	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	P	P	P	P ²	B	P	P	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	B	B
Point Discharges - Runoff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Other	B	B	P	B	B	P	P	P	B	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	B	B	P	P	P	P	B	B	B	B
Energy-related Activities/Structures	B	P	P	P ³	B	P	B	B	B	B
Dredging - Improvement	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	A	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	B	B	B	B	P	B	B	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	B	P	P	P	B	P	B	B	B	B

Rhode Island Coastal Resources Management Program

Type 4 Waters	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	B	P	A ¹	A ¹	P	B	B	A ¹	B
Residential Structures	P	P	P	P	A	P	P	P	A	B
Commercial/Industrial Structures	B	B	P	P	B	P	B	B	B	B
Recreational Structures	B	B	P	P	B	P	B	B	B	B
Recreational Mooring Areas	B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	B	B	P	P	B	P	B	B	B	B
Launching Ramps*	B	B	P	B	B	P	B	B	B	B
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	A/B ⁵	A	P	P	A	A	A	A	A	B
Mooring of Houseboats	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	B	B	P	P ²	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	A	B
Point Discharges - Runoff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Other	B	B	P	B	B	P	B	B	B	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	B	B	P	P	P	P	B	B	B	B
Energy-related Activities/Structures	B	B	P	P ³	B	P	B	B	B	B
Dredging - Improvement	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	A	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	B	B	B	B	P	B	B	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	B	B	P	P	B	P	B	B	B	B

Rhode Island Coastal Resources Management Program

Type 5 Waters	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	B	P	A ¹	A ¹	P	B	B	A ¹	B
Residential Structures	P	P	P	P	A	P	B	B	A	B
Commercial/Industrial Structures	B	B	P	P	B	P	B	B	B	B
Recreational Structures	B	B	P	P	B	P	B	B	B	B
Recreational Mooring Areas	B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	B	B	P	P	B	P	B	B	B	B
Launching Ramps*	B	B	P	B	B	P	B	B	B	B
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	A/B ⁵	A	P	P	A	A	A	A	A	B
Mooring of Houseboats	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	P	B	P	P ²	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	B	B	A	B
Point Discharges - Runoff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Other	B	B	P	B	B	P	B	B	B	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	B	B	P	P	P	P	B	B	B	B
Energy-related Activities/Structures	B	B	P	P ³	B	P	B	B	B	B
Dredging - Improvement	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	A	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	B	B	B	B	P	B	B	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	B	B	P	P	B	P	B	B	B	B

Rhode Island Coastal Resources Management Program

Type 6 Waters¹⁰	Tidal Waters	Beaches and Dunes	Undeveloped Barriers	Moderately Developed Barriers	Developed Barriers	Coastal Wetlands	Headlands, Bluffs and Cliffs	Rocky Shores	Manmade Shorelines	Areas of Historic/Archaeological Significance
Filling, Removal, and Grading of Shoreline Features	n/a	B	P	A ¹	A ¹	P	B	B	A ¹	B
Residential Structures	P	P	P	P	A	P	B	B	A	B
Commercial/Industrial Structures	B	B	P	P	B	P	B	B	B	B
Recreational Structures	B	B	P	P	B	P	B	B	B	B
Recreational Mooring Areas	P	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marinas	B	B	P	P	B	P	B	B	B	B
Launching Ramps*	B	B	P	B	B	P	B	B	B	B
Residential Docks,*Piers,*& Floats Limited Recreational Boating Facilities	A/B ⁵	B	P	P	B	B	B	B	B	B
Mooring of Houseboats	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mooring of Floating Businesses	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Municipal Sewage Treatment Facilities	B	B	P	P ²	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	B	B	A	B
Point Discharges - Runoff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Other	B	B	P	B	B	P	B	B	B	B
Non-Structural Shoreline Protection	A	A	A	A	A	A	A	A	A	A
Structural Shoreline Protection	B	B	P	P	P	P	B	B	B	B
Energy-related Activities/Structures	B	B	P	P ³	B	P	B	B	B	B
Dredging - Improvement	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Dredging - Maintenance	A	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Open-Water Dredged Material Disposal	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Upland Dredged Material Disposal	n/a	B	B	B	B	P	B	B	B	B
Beach Nourishment	B	B	B	B	B	P	n/a	n/a	n/a	B
Filling in Tidal Waters	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Aquaculture	B	n/a	n/a	n/a	n/a	P	n/a	n/a	n/a	n/a
Mosquito Control Ditching	A	n/a	n/a	n/a	n/a	A	n/a	n/a	n/a	B
Mining	P	P	P	P	P	P	P	P	P	P
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, Airports	B	B	P	P	B	P	B	B	B	B

Table 1A. Review Categories in the 200-foot Area Contiguous to Shoreline Features.

<u>Alteration or Activity</u>	<u>Review Category</u>
Filling, Removal, and Grading of Shoreline Features	A/B ¹
Residential buildings	A ²
Commercial and Industrial Structures	A/B ³
Recreational Structures	A/B ³
Municipal Sewage Treatment Facilities	A/B ³
Individual Sewage Disposal Systems	A
Point Discharges - Runoff	A
Point Discharges - Other	B
Structural Shoreline Protection	B
Non-Structural Shoreline Protection	A
Upland Dredged Material Disposal	A/B ³
Energy-related Structures	B
Mining	B
Construction of Public Roads, Bridges, Parking Lots, Railroad Lines, and Airports	B
Associated Residential Structures	A/F (F-Finding of No Significant Impact)

NOTE: Setbacks from buffers and/or critical erosion areas as required in this program or any Special Area Management Plan are to be applied to these activities

Footnotes:

1. Section 300.2(A)3 for differentiation between Category A and B reviews.
2. See Section 320.D.2.
3. For commercial and industrial structures, recreational structures, upland disposal of dredged material as part of an approved maintenance application, and municipal sewage treatment facilities, a Category "A" review may be permitted provided that the Executive Director determines that:
 - (1) All criteria in Section 110.1A are met;
 - (2) The proposed activity is determined to be a minor alteration with respect to potential impacts to the waterway, coastal feature, and in areas within RICRMP jurisdiction;
 - (3) The proposed activity conforms with any and all applicable adopted CRMC special area management plans;
 - (4) The proposed activity will not significantly conflict with existing uses and activities in the waterway, on the coastal feature, and in areas within RICRMP jurisdiction;
 - (5) The proposed activity does not represent new development of a site within RICRMP jurisdiction along a Type 1, 2, or 4 waterway;
 - (6) The applicant meets all applicable requirements of Section 300.9.

Table 1B. Review Categories for Inland Activities (Section 320 and Section 325)

Alteration or Activity	Review Category
-------------------------------	------------------------

Statewide

Power-generating plants (excluding facilities of less than a 40-megawatt capacity)	B
Petroleum storage facilities (excluding those of less than 2,400-barrel capacity)	B
Chemical or petroleum processing facilities	B
Minerals extraction	B
Sewage treatment and disposal facilities (excluding individual sewage disposal systems)	B
Solid waste disposal facilities	B
Desalination plants	B

Extending Onto Coastal Feature or Contiguous Area

Subdivision, co-operative, or other multi-ownership facility	A/B ¹
40,000 square feet of impervious surface	A/B ²

Critical Coastal Areas

Subdivision, co-operative, or other multi-ownership facility	A/B ¹
40,000 square feet of impervious surface	A/B ²
On-site sewage disposal system serving more than 2,000 gallons per day	A/B ²
Extension of municipal or industrial treatment facilities or sewer lines	B ³
Water distribution systems or the extension of supply lines	A/B ²

Footnotes

¹For residential subdivisions a Category "A" review may be permitted provided that the proposed subdivision is less than six (6) units.

²Determined based on the application of other requirements (e.g., Table 1 or 1A) or at the discretion of the Executive Director.

³Not including the extension of sewer lines that are recommended within a council-approved special area management plan

Section 110.

Applications for Category A and Category B Council Assents

A. The regulations contained herein are regulations that must be met by all persons who undertake alterations and activities under the Council's jurisdiction.

B. Through the adoption and implementation of the Marine Resources Development Plan by the Council on January 10, 2006, permit applications which meet the thresholds below in paragraph C, have received no objections, and are consistent with the goals and policies of the coastal resources management program will be reviewed and acted upon administratively by the executive director or his/her designee not less than 20 calendar days after the staff report(s) is/are completed and placed in the public file. Category B applications which do not meet the thresholds below or have received an objection(s) will be reviewed by the full Council, and are not subject to the 20 day wait period that the applications reviewable under subsection C below are. All public notice requirements, prerequisites, policies, prohibitions and standards shall remain in full force and effect and any reference to review and/or action by the full council cited herein shall be superseded by this rule.

If the executive director or deputy director in their discretion determines the application does not meet the goals and policies contained in the coastal resources management program and its applicable special area management plans, or fails to meet the variance criteria for any required variances, they may require that the application be reviewed and acted upon by the full council. The applicant will be notified of that determination in writing.

C. Applications eligible for administrative review include the following.

- Subdivisions of 20 units or less;
- Residential docks less than 200 feet (MLW) in length in the Sakonnet River or the open waters of Narragansett Bay;
- Residential docks up to 75 feet (MLW) in length as are permissible in CRMC water types set forth in the CRMP;
- Terminal floats less than 200 square feet;
- Aquaculture sites of up to three (3) acres in the salt ponds or upper Narragansett Bay; less than 10 acres elsewhere;
- Structural shoreline protection facilities of less than 300 linear feet;
- Dredging, and dredge material disposal at pre-approved locations of less than 100,000 cubic yards for marinas or state navigation projects;
- Beach Nourishment projects of less than 100,000 cubic yards;
- Wetland mitigation that is habitat restoration when an applicant is a federal, state, or municipal entity;
- Harbor management plans that are recommended for approval;
- Boat and float lifts;
- Habitat Restoration projects undertaken by public entities or in partnership with public entities; and
- RIDOT road and bridge projects that do not require variances or special exceptions.

110.1 Category A Applications

A. The activities and alterations listed as "A" in Table 1 (shoreline features and tidal waters), Table 1A (the 200-foot area contiguous to shoreline features) or Table 1B (inland activities) include routine matters and categories of construction and maintenance work that do not require review by the full Council if criteria (1) through (4) below are all met.

- 1) The goals, policies, prerequisites, and standards of this document that apply to the areas and activities in question are met.

2) All buffer zone and setback requirements as contained in Sections 140 and 150 and/or as contained in applicable special area management plans are met.

3) Substantive objections are not raised by abutters of those Category A applications sent out to public notice, the CRMC members have not raised objections, or the Executive Director has not made a determination that the Category A activity in question is more appropriately reviewed as a Category B activity. (Note that starred Category A activities listed in Table 1 are put out to notice). It should be noted that all notice procedures are subject to the provisions of the Administrative Procedures Act (APA).

4) Proof of certification of compliance with all applicable state and local statutes, ordinances, and regulations is provided.

B. If the Council's executive director verifies that these criteria have been met, an Assent for the proposed activity or alteration will be issued. This Assent may include stipulations or conditions to ensure compliance with the goals, policies, and standards of this Program.

C. If the criteria listed in Section 110.1(A) are not verified as met or a substantive objection is filed, the application shall be considered a Category B application and will be reviewed by the full Council.

D. Applicants desiring relief from one or more standards may apply for a variance (Section 120).

Section 110.2.
Category B Applications

- A. Applicants for activities and alterations listed as "B" in Table 1 Table 1A, or Table 1B in addition to adhering to the applicable policies, prerequisites, and standards, are required to address all Category B requirements as listed in applicable sections of the program and, where appropriate, other issues identified by the Council.

- B. Formal notice will be provided to all interested parties once completed forms for a Category B application have been filed with the Council. A public hearing will be scheduled if there are one or more substantive objections to the project, or at the consensus of four or more members of the Council.

- C. A Category B Assent shall be issued if the Council finds that the proposed alteration conforms with the goals, policies, prerequisites, informational requirements, and standards of this Program.

Section 110.3.
Substantive Objections

- A. Substantive objections are defined by one or more of the following:
- (1) threat of direct loss of property of the objector(s) at the site in question;
 - (2) direct evidence that the proposed alteration or activity does not meet all of the policies, prerequisites, and standards contained in applicable sections of this document;
 - (3) evidence is presented which demonstrates that the proposed activity or alteration has a potential for significant adverse impacts on one or more of the following descriptors of the coastal environment: (a) circulation and/or flushing patterns; (b) sediment deposition and erosion; (c) biological communities, including vegetation, shellfish and finfish resources, and wildlife habitat; (d) areas of historic and archaeological significance; (e) scenic and/or recreation values; (f) water quality; (g) public access to and along the shore; (h) shoreline erosion and flood hazards; or
 - (4) evidence that the proposed activity or alteration does not conform to state or duly adopted municipal development plans, ordinances, or regulations.

Section 110.4
Findings of No Significant Impact

A. Certain construction and alteration activities within 200 feet of a coastal feature frequently are found to pose little impact or threat to coastal resources and therefore do not warrant full CRMC staff review. These activities are often associated with existing residential, commercial, and/or industrial sites or previously assented structures or activities and include, but are not limited to, interior renovations, construction of attached decks, dormers, porches, second story additions, roofing, siding or window and door alterations, installation of detached tool sheds, flag poles, fences along property bounds located landward of the coastal feature and certain types of landscaping work.

B. These associated structures and activities, depending on the extent of alteration and proximity to the coastal feature, may, on a case by case basis, and after preliminary review of the proposed activity or upon staff recommendation, be determined by the Council's Executive Director as having an insignificant threat to coastal resources. In such cases, an application for a finding of no significant impact to undertake the proposed activity will be required. The property owner will receive a letter from the Executive Director informing him of the determination, the limits of authorized work, and a time frame within which the work is to be completed. This letter must be kept on-site and available for inspection by appropriate CRMC officials.

Section 120

Variances

A. Applicants desiring a variance from a standard shall make such request in writing and address the six criteria listed below in writing. Except as otherwise provided herein, the application shall then be granted a variance only if the Council finds that the following six criteria are met.

(1) The proposed alteration conforms with applicable goals and policies of the Coastal Resources Management Program.

(2) The proposed alteration will not result in significant adverse environmental impacts or use conflicts, including but not limited to, taking into account cumulative impacts.

(3) Due to conditions at the site in question, the applicable standard(s) cannot be met.

(4) The modification requested by the applicant is the minimum variance to the applicable standard(s) necessary to allow a reasonable alteration or use of the site.

(5) The requested variance to the applicable standard(s) is not due to any prior action of the applicant or the applicant's predecessors in title. With respect to subdivisions, the Council will consider the factors as set forth in (B) below in determining the prior action of the applicant.

(6) Due to the conditions of the site in question, the standard(s) will cause the applicant an undue hardship. In order to receive relief from an undue hardship an applicant must demonstrate *inter alia* the nature of the hardship and that the hardship is shown to be unique or particular to the site. Mere economic diminution, economic advantage, or inconvenience does not constitute a showing of undue hardship that will support the granting of a variance.

B. In reviewing requests for buffer zone variances for subdivisions of five (5) lots or less, the Council will review on a case-by-case basis the extent to which the prior action of the applicant or its predecessor in title created or caused the need for a variance, whether the applicant has created the need for a variance by the subdivision and whether the subdivision complies with local zoning requirements.

C. Relief from a standard does not remove the applicant's responsibility to comply with all other Program requirements.

D. Prior to requesting approval for a CRMC variance, in those instances where a variance would be obviated if a setback were acquired from the local municipality, the applicant must first exhaust his remedies before the local municipality.

**Section 130.
Special Exceptions**

A. Special exceptions may be granted to prohibited activities to permit alterations and activities that do not conform with a Council goal for the areas affected or which would otherwise be prohibited by the requirements of this document only if and when the applicant has demonstrated that:

- 1) The proposed activity serves a compelling public purpose which provides benefits to the public as a whole as opposed to individual or private interests. The activity must be one or more of the following:
 - (a) an activity associated with public infrastructure such as utility, energy, communications, transportation facilities, however, this exception shall not apply to activities proposed on all classes of barriers, barrier islands or spits except as provided in 210.2.D.9;
 - (b) a water-dependent activity that generates substantial economic gain to the state; and/or
 - (c) an activity that provides access to the shore for broad segments of the public.
- 2) All reasonable steps shall be taken to minimize environmental impacts and/or use conflict.
- 3) There is no reasonable alternative means of, or location for, serving the compelling public purpose cited.

B. Special exceptions may be granted only after proper notice in accordance with the Rhode Island Administrative Procedures Act, a public hearing has been held, and the record of that hearing has been considered by the full Council. The Council shall make public the findings and conclusions upon which a decision to issue a Special Exception are based.

C. In granting a Special Exception, the Council shall apply conditions as necessary to promote the objectives of the Program. Such conditions may include, but are not limited to, provisions for:

- 1) Minimizing adverse impacts of the alteration upon other areas and activities by stipulating the type, intensity, and performance of activities, and the hours of use and operation;
- 2) Controlling the sequence of development, including when it must be commenced and completed;
- 3) Controlling the duration of use or development and the time within which any temporary structure must be removed;
- 4) Assuring satisfactory installation and maintenance of required public improvements;
- 5) Designating the exact location and nature of development; and
- 6) Establishing detailed records by submission of drawings, maps, plots, or specifications.

Section 140. Setbacks

A. Definition: a setback is the minimum distance from the inland boundary of a coastal feature at which an approved activity or alteration may take place.

B. Setbacks shall be maintained in areas contiguous to coastal beaches, coastal wetlands, coastal cliffs and banks, rocky shores, and existing manmade shorelines, and apply to the following categories of activities and alterations:

(1) Filling, removal, or grading, except when part of an approved alteration involving a water-dependent activity or structure (Section 300.2);

(2) Residential buildings and garages excluding associated structures (Section 110.4);

(3) New individual sewage disposal systems, sewage treatment plants, and associated sewer facilities excluding outfalls (Section 300.6). Repairs and replacements of existing (permitted) individual sewage disposal systems shall be exempt from the Council's setback requirements;

(4) Industrial structures, commercial structures, and public recreation structures that are not water-dependent (Section 300.3); and

(5) Transportation facilities that are not water-dependent (Section 300.13).

C. Setbacks will be determined using the rates of change as found on the accompanying Shoreline Change Maps for Watch Hill to the Easternmost Point of Quicksand Beach (Little Compton) abutting Massachusetts. The minimum distance of a setback shall be not less than 30 times the calculated average annual erosion rate for less than four dwelling units and not less than 60 times the calculated average annual erosion rate for commercial, industrial or dwellings of more than 4 units. At a minimum however, setbacks shall extend either fifty (50) feet from the inland boundary of the coastal feature or twenty-five (25) feet inland of the edge of a Coastal Buffer Zone, whichever is further landward. Due to site conditions over time, field verification of a coastal feature or coastal buffer zone may result in a setback determination different than that calculated using a shoreline change rate.

D. Applicants for alterations and activities who cannot meet the minimum setback standards may apply to the Council for a variance (Section 120).

E. The setback provisions do not apply to minor modifications or restoration of structures that conform with all other policies and standards of this program.

Section 145

Climate Change and Sea Level Rise

A. Definitions

1. **Climate** is the long-term weather average observed within a geographic region, and **climate change** refers to fluctuations in the Earth's climate system as a result of both natural and anthropogenic causes. Currently the long term climate change trend is evidenced by rising global temperatures; increasing extremes within the hydrologic cycle resulting in more frequent floods and droughts; and rising sea level.
2. **Sea level** is the height of the sea with respect to a horizontal control point or benchmark such as the National Geodetic Vertical Datum of 1929 (NGVD 29) or the North American Vertical Datum of 1988 (NAVD 88). **Sea level rise** refers to the net increase in mean sea level over time in response to global climate, local tectonic changes, glacial isostatic adjustment, and ocean dynamics.. Sea level rise indicates a positive trend, thus an increase in sea level as compared to historic measurements. **Global sea level rise** is the worldwide variations in sea level due to eustatic contributions such as thermal expansion of seawater and melting glacial ice sheets. **Relative sea level rise** is a regional change in sea level relative to land surface elevations. Relative sea level rise is influenced by tectonic response to ice or sediment loading, land subsidence due to extraction of water or oil, dynamic effects of ocean currents or the gravitational pull of ice sheets on ocean waters. Sea levels are rising along most of the world's coastlines, including Rhode Island. However, in places that are experiencing rapid uplift due to tectonic plate movement or glacial isostatic adjustment the relative sea level trends are falling because the land is rising faster than the sea (<http://tidesandcurrents.noaa.gov/sltrends/sltrends.shtml>).
3. **Vertical datums** are either fixed benchmarks such as NGVD 29 and NAVD 88 or site specific tidal datums such as mean high water, mean low water and mean sea level. NGVD 29 is based on the local mean sea level in 1929, which has changed over time. NAVD 88 is now the official civilian vertical datum for surveying and mapping activities in the United States. The conversion to NAVD 88 should be accomplished on a project-by-project basis. It should be noted, however, that NAVD 88 is not synonymous with mean sea level nor does it correct for sea level changes that have occurred since the establishment of NGVD 29. Tidal datums, such as mean sea level (MSL) or mean high water (MHW) vary according to the specific location, and represent the mean heights observed over the National Tidal Datum Epoch. Datum conversions for NOAA tide gauges at www.tidesandcurrents.noaa.gov or can be calculated using the NOAA VDatum software available at <http://vdatum.noaa.gov> or the US Army Corps of Engineers CORPSCON software available at <http://www.agc.army.mil/corpscon>.
4. **Horizontal datums** are either fixed benchmarks or site-specific control points that establish location for a point on a map consistent with a coordinate system. The North American Datum of 1983 (NAD 83) is the official horizontal datum for the United States based on a geocentric origin and the Geodetic Reference System 1980. Conversions between the datums can be made using software such as NADCON available from the National Geodetic Survey at http://www.ngs.noaa.gov/PC_PROD/pc_prod.shtml or the US Army Corps of Engineers CORPSCON software at <http://www.agc.army.mil/corpscon/>.

B. Findings

1. On very long (geologic) time scales, sea level naturally fluctuates in response to variations in astronomical configurations that cause changes in the Earth's climate system. Since the Last Glacial Maximum (approximately 26,000 years ago), global sea level has risen by over 390 feet (120 meters), as water that was previously trapped in continental ice sheets has made its way into the global ocean.
2. Sea level rise is a direct consequence of global climate change. Greenhouse gas emissions to the atmosphere increase surface warming, which in turn increases the volume of ocean waters due to thermal expansion, and accelerates the melting of glacial ice. Atmospheric greenhouse gas concentrations are already higher than levels at the last interglacial period, when sea levels were 13 to 19 feet (4 to 6 meters) higher than at present (Overpeck *et al.*, 2006). Greenhouse gas concentrations are expected to continue to increase through 2100.
3. Human activities and increased concentrations of greenhouse gasses in the atmosphere have *accelerated* the historic rate of eustatic sea level rise. Over the last 100 years, sea levels have risen 0.56 feet (0.17 m) globally. The average rate of rise during the years between 1961 and 2003 was 0.071 inches per year (1.8 mm/yr), and between 1993 and 2003 the rate nearly doubled to 0.12 inches per year (3.1 mm/yr) (IPCC, 2007).
4. In addition to rising global sea levels, the land surface in Rhode Island was believed to be subsiding at a rate of approximately 6 inches (15 cm) per century (Douglas, 1991). More recent studies indicate that many more factors, including changes in ocean circulation, contribute to Rhode Island's relative sea level rise than subsidence alone. The combination of these effects is evident from the long-term trend recorded by the Newport tide gauge (Figure 1), which indicates a rate of 10.6 inches (26.9 cm) of relative sea level rise per century or 2.69 mm per year.
5. The rate of sea level rise is accelerating. Future sea level rise, like the recent rise, is not expected to be globally uniform or linear. Some regions will become more substantially inundated than the global average, and others less. Of foremost concern is the trend in eustatic rise as observed from tide-gauge records over the past century. The rate of rise globally during the past 20 years is 25% faster than the rate of rise in any 20 year period that exists in the instrumental record (Church and White, 2006; Rahmstorf *et al.*, 2007, Vermeer and Rahmstorf, 2009 and Rahmstorf *et al.*, 2011).
6. Model-simulated projections of global sea level over the 21st century also clearly demonstrate accelerated progression. Predictions have ranged from 4 inches (10 cm) to several feet above current levels by the year 2100. As a rule, sea level estimates are increasing as the science of modeling becomes more developed.

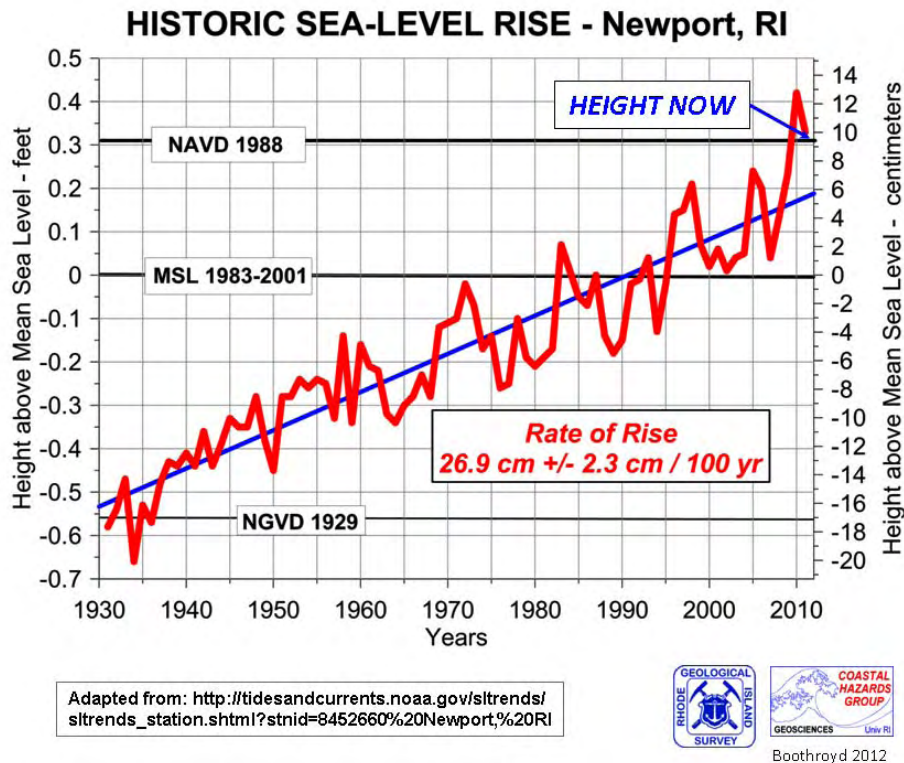


Figure 1. Sea level has risen 8.5 inches since 1931 based on the long-term trend at Newport.

7. When compared with actual observations, modeling scenarios can be quite conservative, as recently observed rates of continental ice melt are greater than those used to generate estimates of sea level rise over the coming century. Since 1990, sea level has been rising faster than the rate predicted by models used to generate IPCC (2001) estimates (Rahmstorf *et al.*, 2007).
8. Higher global temperatures indicate a greater risk of destabilizing the Greenland and West Antarctic ice sheets, yet a great amount of uncertainty remains as to the overall contribution from ice sheet melting. The recent and much publicized Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2007) projects 7 to 23 in (18 to 59 cm) of eustatic sea level rise in the coming century. These estimates do not include contributions of ice flow dynamics or local subsidence.
9. Rahmstorf (2007) and Rahmstorf *et al.* (2011) correlate global sea level rise to global mean surface temperature, which is a good approximation for observations of the 20th century. When this relationship is applied to 21st century warming scenarios, eustatic rise is projected between 1.6 to 4.6 feet (50 to 140 cm) above 1990 levels. Accounting for regional isostatic effects, this estimate suggests that by 2100 sea level in Rhode Island could rise approximately 2 to 5 feet (65 to 155 cm).
10. More recent scientific observations and refined climate models support previous projections and indicate that globally a range of sea level rise of between 2 to 6 feet (0.6 to 1.9 m) above 1990 levels is expected by the year 2100 (Jevrejeva *et al.*, 2010; Vermeer and Rahmstorf, 2009 and Rahmstorf *et al.*, 2011).

11. Regional rates of sea level rise will differ across the globe. The dynamic effects of ocean currents and the diminishing gravitational pull of dwindling ice sheets on ocean waters, have the potential to increase sea level rise rates at a particular location. Model projections indicate that a slowdown in the Atlantic Meridional Overturning Circulation (AMOC) may lead to a rapid rise in sea level on the northeast coast of the United States (Yin *et al.*, 2009, Yin *et al.*, 2011, Kuhlbrodt *et al.*, 2009, Hu *et al.*, 2009, Bingham and Hughes, 2009 and Kopp *et al.*, 2010). Changes in static equilibrium of ocean and ice mass distribution will have an impact on relative sea levels depending on the rate of melt (Kopp *et al.*, 2010).
12. U.S. Geological Survey scientists detail in their study (Sallenger *et al.*, 2012) that recently accelerated sea level rise along the Atlantic Coast will result in sea levels 8 to 11 inches (20-29 cm) higher than the global average from Cape Hatteras, NC to Boston, MA by 2100. They present evidence that the rate of sea level rise increase in the study area was 3-4 times higher than the global average during the last two tidal epochs of 1950-1979 and 1980-2009. Sea level rise combined with storm surge, wave run-up and set-up will increase the vulnerability of near-shore areas to flooding, beach erosion and coastal wetland degradation.
13. A study by Strauss *et al.* (2012) examines topographic vulnerability of low-lying coastal land in the continental United States to sea level rise and flooding. The researchers found that there are presently 2705 housing units along the Rhode Island shoreline that are located less than 1 meter (39 inches) above local mean high water (MHW). These housing units are most at risk for increased flooding and eventual submersion as a result of sea level rise.
14. Tibaldi *et al.* (2012) investigated the historic patterns of extreme high tide events at 55 coastal locations of the contiguous United States using a detailed analysis of the NOAA tide gauge station data from 1979-2008 coupled with anticipated relative sea level rise. They calculate an increase of 5.1 inches (0.13m) by 2030 and 12.2 inches (0.31m) by 2050 above the 2008 mean high water level as measured at the Newport tide gauge. The study indicates that the frequency of extreme high tide levels will increase significantly in the coming years.
15. Climate change will result in wide scale systematic changes in the terrestrial and marine environments. These changes will result in ecosystem shifts that will challenge natural resource managers' efforts to cope and adapt to the new regime.
16. Future increases in relative sea level will displace coastal populations, threaten infrastructure, intensify coastal flooding and ultimately lead to the loss of recreation areas, public space, and coastal wetlands.
17. Coastal infrastructure will become increasingly susceptible to complications from rising sea levels, as the upward trend continues. Residential and commercial structures, roads, and bridges will be more prone to flooding. Sea level rise will also reduce the effectiveness and integrity of existing seawalls and revetments, designed for historically lower water levels.
18. Higher sea levels will result in changes in surface water and groundwater characteristics. Salt intrusion into aquifers will contaminate drinking water supplies and higher water tables will compromise wastewater treatment systems in the coastal zone.
19. Future increase in relative sea level will increase the extent of flood damage over time. Lower elevations will become increasingly susceptible to flooding as storm surge reaches further inland due

to sea level rise in concert with a probable increase in the intensity of storms predicted from climate change. As a result, more coastal lands will be susceptible to erosion.

20. At historic rates of sea level rise, the relative surface elevation of a salt marsh may be maintained through the process of accretion (the build-up of live and decaying plant parts and inorganic sediments). Yet, at high rates of relative sea level rise as predicted by Rahmstorf (2007), accretive processes in coastal wetlands will not keep pace. These habitats can become submerged resulting in a loss of salt marsh vegetation and an alteration of habitat types. This has been demonstrated by the rapid salt marsh loss in coastal Louisiana. Observations by environmental researchers here in Rhode Island indicate that salt marshes are losing high marsh habitat as a result of more frequent inundation and possibly a consequence of accretion rates that are unable to keep pace with increased rates of sea level rise. As salt marshes and other coastal habitats become submerged, they migrate inland. However, coastal development has decreased the amount of upland open space adjacent to these habitats limiting their ability to migrate landward. Thus, an increase in the rate of relative sea level rise will likely result in significant losses of coastal saltmarsh habitats.
21. The average annual temperature of southern New England coastal waters, including Narragansett Bay, has risen approximately two (2) degrees Fahrenheit since the 1960's. This warming trend is implicated in the change of species composition and abundance in Narragansett Bay waters (Nixon, *et al.*, 2003).
22. Increased water temperatures due to climate change will work synergistically with high nutrient levels to stress eelgrass beds. Eelgrass grows best in cool, clean waters. Even as nutrient levels in the Bay are reduced from wastewater treatment plants, if Bay and coastal waters continue to warm due to climate change, it will adversely impact eelgrass beds (Bintz, *et al.*, 2003).
23. Barrier islands are forced landward with rising sea levels. Increased frontal erosion and retreat of the barriers will cause Rhode Island's south shore to migrate continuously landward with rising sea levels.
24. Due to the timescales associated with climate processes and feedbacks, anthropogenic warming and sea level rise will continue for centuries regardless of steps taken to curb greenhouse gas emissions (IPCC, 2007).
25. Flooding is a destructive natural hazard and results in economic loss to the citizens of Rhode Island. Approximately 154 square miles (14%) of the State's 1100 square miles of land area are mapped as Special Flood Hazard Areas by the National Flood Insurance Program (NFIP) where there is a 1% chance of flooding in any given year. (RIEMA, 2011). More than 16,000 buildings are located within these flood prone areas with an additional 12,000 buildings located in areas mapped as 0.2% chance of flooding (based on CRMC GIS assessment of E911 data and flood zones).
26. All 39 communities within the State participate in the National Flood Insurance Program, yet only about half of Rhode Island property owners located within Special Flood Hazard Areas carry flood insurance (RIEMA and E911 data assessment).
27. Pursuant to R.I.G.L. § 46-23-6, the Council is authorized to develop and adopt policies and regulations necessary to manage the coastal resources of the state and protect life and property from coastal hazards resulting from projected sea level rise and probable increased frequency and intensity of coastal storms due to climate change. The Council is also authorized to collaborate with the State

Building Commissioner and adopt freeboard calculations (a factor of added safety above the anticipated flood level), in accordance with R.I.G.L. § 23-27.3-100.1.5.5.

28. The U.S. Army Corps of Engineers (USACE) has released a revised circular dated October 1, 2011 detailing its methodologies for assessing the impacts of sea level rise in the planning, design, engineering, construction, operation and maintenance of USACE civil works projects in coastal areas. The required project analyses determine how sea level rise scenarios may affect risk levels to the surrounding area and identify the design or operations and maintenance measures that will minimize adverse consequences while maximizing the beneficial effects of the project. See: http://publications.usace.army.mil/publications/eng-circulars/EC_1165-2-212.pdf.
29. According to a USGS report (Titus et al., 2009), preparing in advance for expected sea level rise is justifiable for several types of impacts, as it may be less costly to react now than to react to an adverse condition in the future. Some examples:
 - *Coastal wetland protection.* Preserving undeveloped lands abutting coastal wetlands allows wetland migration, but once developed, it is very difficult to make land available for wetland migration. Therefore, it is far more practicable to promote wetland migration by setting aside land before it is developed and preserving coastal buffer zones, than to require development to be removed as sea level rises.
 - *Some long-term infrastructure.* Whether it is beneficial to design coastal infrastructure to anticipate rising sea level depends on economic analysis of the incremental cost of designing for a higher sea level now, and the retrofit cost of modifying the structure at some point in the future. Most long-lived infrastructure in the threatened areas is sufficiently sensitive to rising sea level to warrant at least an assessment of the costs and benefits of preparing for rising sea level.
 - *Floodplain management.* Rising sea level increases the potential disparity between rates and risk. Even without considering the possibility of accelerated sea level rise, the National Academy of Sciences and a Federal Emergency Management Agency (FEMA)-supported study by the Heinz Center recommended to Congress that insurance rates should reflect the changing risks resulting from coastal erosion.

C. Policies

1. The Council will review its policies, plans and regulations to proactively plan for and adapt to climate change and sea level rise. The Council will integrate climate change and sea level rise scenarios into its programs to prepare Rhode Island for these new, evolving conditions and make our coastal areas more resilient.
2. The Council's sea level rise policies are based upon the CRMC's legislative mandate to preserve, protect, and where possible, restore the coastal resources of the state through comprehensive and coordinated long-range planning.
3. The Council recognizes that sea level rise is ongoing and its foremost concern is the accelerated rate of rise and the associated risks to Rhode Island coastal areas today and in the future. Accordingly, for planning and management purposes, it is the Council's policy to accommodate a base rate of expected 3 to 5 foot rise in sea level by 2100 in the siting, design, and implementation of public and private coastal activities and to insure proactive stewardship of coastal ecosystems under these changing conditions. It should be noted that the 3-5 ft. rate of sea level rise assumption embedded in this policy is relatively narrow and low. The Council recognizes that the lower the sea level rise estimate used, the greater the risk that policies and efforts to adapt sea level rise and climate change will prove to be

inadequate. Therefore, the policies of the Council may take into account different risk tolerances for differing types of public and private coastal activities. In addition, this long term sea level change base rate will be revisited by the Council periodically to address new scientific evidence.

D. References

Bingham, R. J. and C. W. Hughes. 2009. Signature of the Atlantic meridional overturning circulation in sea level along the east coast of North America, *Geophysical Research Letters*, Vol 36, L02603, 5 pp., doi:10.1029/2008GL036215

Bintz, J., S. Nixon, B. Buckley, and S. Granger. 2003. Impacts of temperature and nutrients on coastal lagoon plant communities. *Estuaries* Vol. 26, No. 3, p. 765-776.

Church, J.A., & White, N.J. (2006). A 20th century acceleration in global sea-level rise. *Geophysical Research Letters*, 33, L01602-L01604.

Douglas, B.C. (1991). Global sea level rise. *Journal of Geophysical Research*, 96(C4), 6981-6992.

Hu, A., G. A. Meehl, W. Han, and J. Yin. 2009. Transient response of the MOC and climate to potential melting of the Greenland Ice Sheet in the 21st century. *Geophysical Research Letters*, Vol 36, L10707, 6 pp., doi:10.1029/2009GL037998

IPCC. (2001). *Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK and New York, NY: Cambridge University Press.

IPCC. (2007). *Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva, Switzerland: UNEP.

Jevrejeva, S., J.C. Moore, and A. Grinsted. 2010. How will sea level respond to changes in natural and anthropogenic forcings by 2100? *Geophysical Research Letters*, Vol. 37, L07703

Kopp, R. E. J. X. Mitrovica, S. M. Griffies, J. Yin, C. C. Hay, and R. J. Stouffer. 2010. The impact of Greenland melt on local sea levels: a partially coupled analysis of dynamic and static equilibrium effects in idealized water-hosing experiments. *Climatic Change* (2010) 103:619–625, DOI 10.1007/s10584-010-9935-1

Kuhlbrodt, T., S. Rahmstorf, K. Zickfeld, F. B. Vikebø, S. Sundby, M. Hofmann, P. M. Link, A. Bondeau, W. Cramer, and C. Jaeger. 2009. An Integrated Assessment of changes in the thermohaline circulation. *Climatic Change* (2009) 96:489–537, DOI 10.1007/s10584-009-9561-y

Nixon, S., S. Granger, and B. Buckley. 2003. The Warming of Narragansett Bay. 41° North. Vol. 2, Issue 1. Rhode Island Sea Grant and the University of Rhode Island Coastal Institute.

Overpeck, J.T., Otto-Bliesner, B.L., Miller, G.H., Muhs, D.R., Alley, R.B., & Kiehl, J.T. (2006). Paleoclimate evidence for future ice-sheet instability and rapid sea-level rise. *Science*, 311, 1747-1750.

Rahmstorf, S. (2007). A semi-empirical approach to projecting future sea-level rise. *Science*, 315, 368-370.

Rahmstorf, S., Cazenave, A., Church, J.A., Hansen, J.E., Keeling, R.F., Parker, D.E., & Somerville, R.C.J. (2007). Recent climate observations compared to projections. *Science*, 316(5825), 709.

Rahmstorf, S, M. Perrette, and M. Vermeer, 2011. Testing the robustness of semi-empirical sea level projections. *Climate Dynamics* DOI 10.1007/s00382-011-1226-7.

Rhode Island Emergency Management Agency (RIEMA). 2011. Rhode Island State Hazard Mitigation Plan, April 2011.

Rhode Island State Building Code. SBC-1 and SBC-2. Department of Administration, Providence, RI. <http://www.ribcc.ri.gov/>

Sallenger, A., K. Doran and P. Howd. 2012. Hotspot of accelerated sea-level rise on the Atlantic coast of North America. *Nature Climate Change Letters*. pub. online 24 June 2012.

Strauss, B., R. Ziemiński, J. Weiss and J. Overpeck. 2012. Tidally adjusted estimates of topographic vulnerability to sea level rise and flooding for the contiguous United States. *Environmental Research Letters* 7 (2012) 014033 12pp.

Tebaldi C. , B. H Strauss and C. E. Zervas. 2012. Modeling sea level rise impacts on storm surges along US coasts. *Environmental Research Letters*, 7 (2012) 014032 (11pp) [doi:10.1088/1748-9326/7/1/014032](https://doi.org/10.1088/1748-9326/7/1/014032)

Titus, James G., K. Eric Anderson, Donald R. Cahoon, Dean B. Gesch, Stephen K. Gill, Benjamin T. Gutierrez, E. Robert Thieler, and S. Jeffrey Williams. 2009. Coastal Sensitivity to Sea Level Rise: A Focus on the mid-Atlantic Region. Synthesis and Assessment Product 4.1. Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. Washington, D.C. ISBN 978-0-16-083086-0

Vermeer, M. and S. Rahmstorf (2009) Global sea level linked to global temperature. *Proc. Natl. Acad. Sci. USA* 106: 21527-21532

Yin J., M. E. Schlesinger, and R. J. Stouffer. 2009. Model projections of rapid sea-level rise on the northeast coast of the United States. *Nature Geoscience*, Vol. 2, DOI: 10.1038/NGEO462

Yin J., J. T. Overpeck, S. M. Griffies, A. Hu, J. L. Russell, and R. J. Stouffer, 2011. Different magnitudes of projected subsurface ocean warming around Greenland and Antarctica. *Nature Geoscience* 4, 524–528 (2011) doi:10.1038/ngeo1189

Section 150. Coastal Buffer Zones

A. Definition

1. A Coastal Buffer Zone is a land area adjacent to a Shoreline (Coastal) Feature that is, or will be, vegetated with native shoreline species and which acts as a natural transition zone between the coast and adjacent upland development. A Coastal Buffer Zone differs from a construction setback (Section 140) in that the setback establishes a minimum distance between a shoreline feature and construction activities, while a buffer zone establishes a natural area adjacent to a shoreline feature that must be retained in, or restored to, a natural vegetative condition (Figure 2). The Coastal Buffer Zone is generally contained within the established construction setback.

B. Findings

1. The establishment of Coastal Buffer Zones is based upon the CRMC's legislative mandate to preserve, protect and, where possible, restore ecological systems.
2. Vegetated buffer zones have been applied as best management practices within the fields of forestry and agriculture since the 1950s to protect in-stream habitats from degradation by the input of sediment and nutrients (Desbonnet et al 1993).

More recently, vegetated buffer zones have gained popularity as a best management practice for the control and abatement of nonpoint source pollutants (contaminated runoff) and are routinely applied in both engineered and natural settings (Desbonnet et al 1993; EPA 1993).

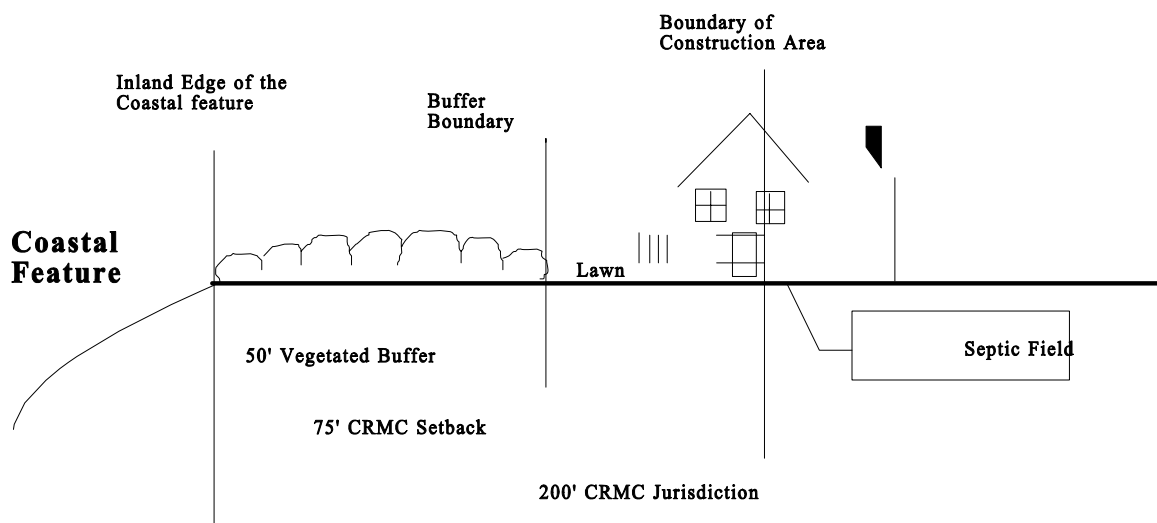
3. Coastal Buffer Zones provide multiple uses and multiple benefits to those areas where they are applied (Desbonnet et al 1993). The multiple uses and benefits of Coastal Buffer Zones include:

(a) *Protection of Water Quality*: Buffer zones along the perimeter of coastal water bodies can be effective in trapping sediments, pollutants (including oil, detergents, pesticides, herbicides, insecticides, wood preservatives and other domestic chemicals), and absorbing nutrients (particularly nitrogen) from surface water runoff and groundwater flow. The effectiveness of vegetated buffers as a best management practice for the control of nonpoint source runoff is dependent upon their ability to reduce the velocity of runoff flow to allow for the deposition of sediments, and the filtration and biological removal of nutrients within the vegetated area. In general, the effectiveness of any vegetated buffer is related to its width, slope, soil type, and resident species of vegetation. Effective buffers for nonpoint source pollution control, which remove at least 50%, and up to 99%, of sediments and nutrients entering them, range from 15 feet to 600 feet in width.

The removal of pollutants can be of particular importance in areas abutting poorly flushed estuaries that are threatened by an excess of nutrients or are contaminated by runoff water, such as the South Shore Salt Ponds and the Narrow River. Large, well flushed water bodies, such as Narragansett Bay, are also susceptible to nonpoint source pollutant inputs, and can be severely impacted by nonpoint source pollutants as has been documented in studies completed for the Narragansett Bay Project.

(b) *Protection of Coastal Habitat:* Coastal Buffer Zones provide habitat for native plants and animals. Vegetation within a buffer zone provides cover from predation and climate, and habitat for nesting and feeding by resident and migratory species. Some species which use coastal buffer zones are now relatively uncommon, while others are considered rare, threatened or endangered. These plants and animals are essential to the preservation of Rhode Island's valuable coastal ecosystem.

Figure 2. An Example of the Application of a Coastal Buffer Zone



The effectiveness of vegetated buffers as wildlife habitat is dependent upon buffer width and vegetation type. In general, the wider the buffer the greater its value as wildlife habitat. Larger buffer widths are typically needed for species that are more sensitive to disturbances (e.g., noise). Furthermore, those buffers that possess vegetation native to the area provide more valuable habitat for sustaining resident species. A diversity of plant species and types (e.g., grasses, shrubs and trees) promotes biodiversity within the buffer area, and the region overall.

(c) *Protection of Scenic and Aesthetic Quality:* One of the primary goals of the Council is to preserve, protect, and where possible restore the scenic value of the coastal region in order to retain the visual diversity and unique visual character of the Rhode Island coast as seen by hundreds of thousands of residents and tourists each year from boats, bridges, and such vantage points as roadways, public parks, and public beaches (Section 330). Coastal Buffer Zones enhance and protect Rhode Island's scenic and visual aesthetic resources along the coast. Coastal buffers also preserve the natural character of the shoreline, while mitigating the visual impacts of coastal development. Visual diversity provides for both contrast and relief between the coastal and inland regions, leading to greater aesthetic value of the landscape.

(d) *Erosion Control:* Coastal Buffer Zones provide a natural transition zone between the open coast, shoreline features and upland development. Natural vegetation within a Coastal Buffer Zone helps to stabilize the soil, reduces the velocity of surface water runoff, reduces erosion of the soil by spreading runoff water over a wide area, and promotes absorption

and infiltration through the detrital (leaf) layer and underlying soils. The extensive root zones often associated with buffer zone vegetation also help prevent excessive shoreline erosion during coastal storm events by stabilizing underlying soils.

(e) *Flood Control*: Coastal Buffer Zones aid in flood control by reducing the velocity of runoff and by encouraging infiltration of precipitation and runoff into the ground rather than allowing runoff to flow overland and flood low lying areas. In addition, Coastal Buffer Zones often occupy the flood plain itself and thus add to coastal flood protection.

(f) *Protection of Historic and Archaeological Resources*: Coastal Buffer Zones protect areas of cultural and historic importance such as archaeological sites by helping prevent intrusion while protecting the sites' natural surroundings.

C. Prerequisites

1. All applications for which this Section applies shall be initially reviewed by the Executive Director or his designee. The Executive Director may grant a variance for such applications in accordance with this section, or refer any application to the Council for a hearing if based upon the application a determination is made that the proposed activity warrants a Council hearing.

D. Policies

1. The establishment of a Coastal Buffer Zone is based upon the CRMC's legislative mandate to preserve, protect and, where possible, restore ecological systems. The determination of the inland boundary of the Coastal Buffer Zone must balance this mandate with the property owner's rights to develop and use the property.

2. The Council shall require Coastal Buffer Zones in accordance with the requirements of this section for the following: a) new residential development; b) commercial and industrial development; c) activities subject to Section 300.8 and Section 300.13; and d) inland activities identified in Section 320. For existing residential structures, the Council shall require a Coastal Buffer Zone for category "A" and "B" activities when the footprint of the structure is expanded 50 percent or more.

3. The vegetation within a buffer zone must be either retained in a natural, undisturbed condition, or properly managed in accordance with the standards contained in this section. In cases where native flora (vegetation) does not exist within a buffer zone, the Council may require restoration efforts which include, but are not limited to, replanting the Coastal Buffer Zone with native plant species.

4. Coastal Buffer Zones shall remain covered with native flora and in an undisturbed state in order to promote the Council's goal of pre-serving, protecting, and restoring ecological systems. However, the Council may permit minor alterations to Coastal Buffer Zones that facilitate the continued enjoyment of Rhode Island's coastal resources. All alterations to Coastal Buffer Zones or alterations to the natural vegetation (i.e., areas not presently maintained in a landscaped condition) within the Council's jurisdiction shall be conducted in accordance with the standards contained in this section as well as all other applicable policies and standards of the Council. In order to ensure compliance with these requirements, the Council may require applicants to submit a Buffer Zone Management Plan.

5. In order to enhance conservation, protect water quality, and maintain the low intensity use characteristic of Type 1 and 2 waters, greater buffer widths shall be applied along the coastline abutting these water types.

6. In critical areas and when the property owner owns adjoining lots, these lots shall be considered as one lot for the purposes of applying the values contained in Table 2a and ensuring that the appropriate buffer zone is established.

Table 2a. Coastal Buffer Zone Designations For Residential Development

Residential Lot Size (sq. ft.)	Water Use Category		
	Type 3, 4, 5 & 6	Required Buffer (ft)	Type 1 & 2
<10,000	15	.....	25
10,000 – 20,000	25	.....	50
20,001 – 40,000	50	.....	75
40,001 – 60,000	75	.....	100
60,001 – 80,000	100	.....	125
80,001 – 200,000	125	.....	150
>200,000	150	.....	200

E. Standards

1. All Coastal Buffer Zones shall be measured from the inland edge of the most inland Shoreline (Coastal) Feature. In instances when the coastal feature accounts for 50 percent or more of the lot, the Council may grant a variance to the required buffer width.

2. *Coastal Buffer Zone Requirements for New Residential Development:* The minimum Coastal Buffer Zone requirements for new residential development bordering Rhode Island's shoreline are contained in Table 2a. The Coastal Buffer Zone requirements are based upon the size of the lot and the CRMC's designated Water Types (Type 1 - Type 6). Where the buffer zone requirements noted above cannot be met, the applicant may request a variance in accordance with Section 120. A variance to 50% of the required buffer width may be granted administratively by the Executive Director if the applicant has satisfied the burdens of proof for the granting of a variance. Where it is determined that the applicant has not satisfied the burdens of proof, or the requested variance is in excess of 50% of the required width, the application shall be reviewed by the full Council.

Instances where a lot is equal to or less than 20,000 square feet and not located within the watershed of a poorly-flushed estuary, a variance to the required buffer width may be granted by the Executive Director.

3. *Coastal Buffer Zone Requirements for Alterations to Existing Structures on Residential Lots.* All calculations for the requirements of a coastal buffer zone shall be made on the basis of structural lot coverage. Structural lot coverage shall mean the total square foot area of the structure(s) on a lot or parcel (ref. Section 300.3.A.5).

(a) Where alterations to an existing structure or structures result in the expansion of the structural lot coverage such that the square footage of the foundation increases by less than 50 percent, no new coastal buffer zone shall be required.

(b) Where alterations to an existing structure or structures result in the expansion of the structural lot coverage such that the square footage of the foundation increases by 50 percent or more, the Coastal Buffer Zone requirement shall be established with a width equal to the percentage increase in the structural lot coverage as of August 8, 1995, multiplied by the value contained in Table 2a.

(c) Coastal Buffer Zones shall not be required when a structure is demolished and rebuilt on the existing footprint. Where a structure is demolished and rebuilt and will result in an expansion of the structural lot coverage such that the square footage of the foundation increases by 50% or more, a Coastal Buffer Zone shall be established with a width equal to the percentage increase in a structure's footprint, multiplied by the value contained in Table 2a.

(d) Where the applicant demolishes a structure, any contemporary or subsequent application to rebuild shall meet applicable setback requirements.

(e) Structures that are less than 200 square feet in area are excluded from these requirements.

In addition, the Executive Director shall have the authority to grant a variance to this requirement for category "A" assents in accordance with the burdens of proof contained in Section 120.

4. *Coastal Buffer Zone Requirements for all Commercial and Industrial development and activities subject to the requirements of Section 300.8, Section 300.13, or Section 320:* Coastal Buffer Zones shall be determined on a case-by-case basis by the Council. Table 2a may be used as appropriate guidance. However, depending on the activity proposed and its potential impacts on coastal resources, the Council may require a Coastal Buffer Zone with a width greater than that found in the Table 2a.

5. All property abutting critical habitat areas, as defined by the Rhode Island National Heritage Program or the Council, shall possess a minimum vegetated buffer zone of 200 feet between the identified habitat and any development area. The Executive Director shall have the authority to grant a variance to these requirements in accordance with the burdens of proof contained in Section 120.

6. All property abutting Coastal Natural Areas (Section 210.4) shall have a minimum vegetated Coastal Buffer Zone of 25 feet from the inland edge of the coastal feature. The

Executive Director shall have the authority to grant a variance to these requirements in accordance with the burdens of proof contained in Section 120.

7. All property located within the boundaries of a Special Area Management (SAM) Plan approved by the Council shall meet additional buffer zone requirements contained within these SAM plans. When a SAM plan's buffer zone requirements apply, the buffer width values contained in this section will be compared to those required by the SAM plan, and the larger of the buffer widths applied

8. The setback (Section 140) for all new and existing residential, commercial, and industrial structures shall exceed the Coastal Buffer Zone requirement by a minimum of 25 feet for fire, safety, and maintenance purposes. Where the 25 foot separation distance between the inland edge of the buffer and construction setback cannot be obtained, the applicant may request a variance in accordance with Section 120. The Executive Director shall have the authority to grant variances to this requirement. However, a vegetated Coastal Buffer Zone shall not directly contact any dwelling's footprint.

F. Buffer Management and Maintenance Requirements

1. All alterations within established Coastal Buffer Zones or alterations to natural vegetation (i.e., areas not presently maintained in a landscaped condition) within the Council's jurisdiction may be required to submit a Buffer Zone Management Plan for the Council's approval that is consistent with the requirements of this section and the Council's most recent edition of *Buffer Zone Management Guidance*. Buffer Zone Management Plans shall include a description of all proposed alterations and methods of avoiding problem areas such as the proper placement and maintenance of pathways. Applicants should consult the Council's most recent edition of *Buffer Zone Management Guidance* when preparing a buffer management plan.

2. In order to promote the Council's goal to preserve, protect and, where possible, restore ecological systems, Coastal Buffer Zones shall be vegetated with native flora and retained in a natural, undisturbed condition, or shall be properly managed in accordance with Council's most recent edition of *Buffer Zone Management Guidance*. Such management activities compatible with this goal include, but are not limited to:

(a) *Shoreline Access Paths*: Pathways which provide access to the shoreline are normally considered permissible provided they are less than or equal to six (6) feet wide and follow a path that minimizes erosion and gullyng within the buffer zone (e.g., a winding, but direct path). Pathways should avoid, or may be prohibited in, sensitive habitat areas, including, but not limited to, coastal wetlands. Pathways may be vegetated with grasses and mowed or may be surfaced with crushed stone or mulch.

(b) *View Corridors*: Selective tree removal and pruning and thinning of natural vegetation may be allowed within a defined corridor in order to promote a view of the shoreline. Only the minimal alteration of vegetation necessary to obtain a view shall be acceptable to the Council. Shoreline access paths shall be located within view corridors to the maximum extent practicable in order to minimize disturbance of Coastal Buffer Zones. View corridors shall be prohibited in sensitive or critical habitat areas.

(c) *Habitat Management*: Management of natural vegetation within a buffer zone to enhance wildlife habitat and control nuisance and non-native species of vegetation may be allowed. Homeowner control of pest species of vegetation such as European bittersweet

and nuisance species such as poison ivy is normally considered acceptable. However, the indiscriminate use of herbicides or the clear-cutting of vegetation shall be prohibited. The use of fertilizers is generally prohibited within the Coastal Buffer Zone except when used to enhance the replanting of native vegetation (e.g., hydro-seeding) approved by the Council. However, the clearing or outright elimination of natural vegetation for such purposes as controlling ticks or pollen shall not be permitted.

(d) *Safety and Welfare*: Selective tree removal, pruning and thinning of natural vegetation within a Coastal Buffer Zone may be allowed by the Council on a case-by-case basis for proven safety and welfare concerns (e.g., removal of a damaged tree in close proximity to a dwelling). In order to promote child safety and manage pets in areas harboring ticks, fences along the inland edge of a Coastal Buffer Zone and along shoreline access pathways may be permitted.

(e) *Shoreline Recreation*: The CRMC recognizes that shoreline recreation is one of the predominant attractions for living on, or visiting the Rhode Island Coast. In order to allow for such uses, minor alterations of buffer zones may be permitted along the shoreline if they are determined to be consistent with Council's requirements. These alterations may include maintaining a small clearing along the shore for picnic tables, benches, and recreational craft (e.g., dinghies, canoes, day sailboats, etc.). Additionally, the CRMC may allow small, non-habitable structures including storage sheds, boat houses and gazebos within Coastal Buffer Zones, where appropriate. However, these structures may be prohibited in sensitive or critical habitat areas. Due to the potential for these structures to impact values provided by Coastal Buffer Zones, the Council shall exercise significant discretion in this area.

Section 160.

Fees

A. The General Laws of the State of Rhode Island Title 46, Chapter 23, Section 2, Subsection 46-23-6 (D)(3), authorize the Council to "grant licenses, permits, and easements for the use of Coastal Resources, which are held in trust by the state for all its citizens, and impose fees for private use of such resources."

B. The Council requires fees for land created by the filling of tidal waters and the long-term (dead) storage of vessels. Factors to be considered in establishing the fee include:

- (1) The degree of preemption associated with the activity or alteration involved;
- (2) The degree of irreversibility associated with the activity or alteration;
- (3) The value of opportunities for other activities lost to the public as the result of the activity; and
- (4) The economic return to the applicant resulting from pursuing the activity of making the permitted alterations.

Payments required by the fee shall be determined by the Council upon the completion of a professional appraisal based on the criteria listed above. The Assent recipient shall bear the cost of the appraisal.

Where public access is provided, the fee may be reduced by Council. In considering the reduction of fees, the Council shall determine the amount of public access, the potential use by the public of this public access, and any other relevant considerations.

C. A Council Assent for aquaculture activities within tidal waters and coastal ponds excluding seasonally deployed aquaculture apparatus such as spat collectors and experimental gear sites, as approved by the council, may include a lease for the approved site.

(1) The annual fee is seventy-five (\$75.00) for half an acre or less, one hundred and fifty dollars (\$150.00) for a half to one acre, and one hundred dollars (\$100.00) for each additional acre. Transient gear lease fees are based on the square footage of the cages, as follows: seventy-five dollars (\$75.00) for 600 square feet or less, one hundred dollars (\$100.00) for 601 to 1,200 square feet, one hundred and fifty dollars (\$150.00) for 1,201-2,400 square feet, and seventy-five (\$75.00) for each additional 1,200 square feet. Annual lease fees are payable in full, in advance, on the first business day in the month of January of each year during the Assent period. Any assignment or sublease of the whole or any portion of a leased area shall constitute a breach of the lease and be cause for termination of the lease, unless such assignment or subletting has received the prior approval of the Council.

(2) In the event a lease holder fails to make full payment of the annual lease fee within the time period established within the lease, for each rental year, the lease agreement shall be terminated, and all Assents and authorities granted shall be revoked. In the event the leased area is not actively used for a period of one year, the lease shall be terminated and the Assent shall be revoked. Lease holders shall be notified 60 days prior to such revocation and may appeal the revocation to the full Council.

(3) Persons wishing to deploy small-scale seasonal apparatus such as spat collectors or experimental aquaculture gear, shall apply for a Council Assent and may, at the discretion of the full Council be charged a lease fee.

D. Whenever the Council receives an application for assent or modification of an assent for an activity or alteration which has already occurred, or has been constructed or partially constructed, the Council may charge an administrative fee, in addition to any other fees required by the Council which shall be assessed at the time the Council grants an assent. The Council shall assess the administrative fee taking into account the additional demand on Council resources, and/or any adverse impacts to the coastal environment and/or the adjacent waterway. This shall not be construed to, and in no way shall, prohibit the Council from seeking any other remedies it deems appropriate.

Section 170.
Violations and Enforcement Actions

- A. Title 46, Chapter 23, GLRI sets out the Council's authorities for enforcement.
- B. Whenever a member of the staff or a Coastal Resources Management Council Member witnesses a violation of the CRMC Plan or Assent, that individual is hereby authorized to issue a warning to the person violating the Plan on a form approved by the CRMC and a report of that warning shall be delivered by the staff or Council member to the Executive Director upon issuance.
- C. In determining the amount of each administrative penalty, assessed in accordance with authorities established in Paragraph A, the Hearing Officer or his designee shall consider any scheduled amounts adopted by the Council and all other factors, which he deems relevant, including but not limited to:
- (1) The actual and potential impact on public health, safety and welfare and the environment of the failure to comply;
 - (2) The actual potential damages suffered, and actual or potential costs incurred, by the Council, or by any other person;
 - (3) Whether the person being assessed the administrative penalty took steps to prevent noncompliance, to promptly come into compliance and to remedy and mitigate whatever harm might have been done as a result of such noncompliance;
 - (4) Whether the person being assessed the administrative penalty has previously failed to comply with any rule, regulation, order, permit, license or approval issued or adopted by the commission, or any law which the commission has the authority or the responsibility to enforce;
 - (5) Making compliance less costly than noncompliance;
 - (6) Deterring future noncompliance;
 - (7) The amount necessary to eliminate the economic advantage of noncompliance including but not limited to the financial advantage acquired over competitors from the noncompliance;
 - (8) Whether the failure to comply was intentional, willful or knowing and not the result of error;
 - (9) Any amount specified by state and/or federal statute for a similar violation or failure to comply;
 - (10) Any other factor(s) that may be relevant in determining the amount of a penalty, provided that the other factors shall be set forth in the written notice of assessment of the penalty; and
 - (11) The public interest.

Section 180. Emergency Assents

1. Catastrophic Storms Assent

A. The Executive Director may grant an Emergency Assent when catastrophic storms, flooding, and/or erosion has occurred at a site under Council jurisdiction, and where, if immediate action is not taken, the existing conditions may cause one or more of the following:

- (1) Immediate threat to public health and safety; and
- (2) Immediate and significant adverse environmental impacts.

These Emergency Assents may permit only such action at the site that will correct conditions (1) and (2) above in a manner consistent with the policies of the Program.

2. Imminent Peril Assent

A. The Chairman, Vice Chairman, or in their absence the Executive Director, may grant an Emergency Assent in circumstances where they determine that there is imminent peril and where, if immediate action is not taken, the existing conditions may cause one or more of the following:

- (1) Bodily harm or a threat to public health;
- (2) Significant adverse environmental impacts; or
- (3) Significant economic loss to the State.

B. The reasons for these findings shall be stated on the record.

3. Post Hurricane and Storm Permitting Procedures

A. It shall be the policy of the Council to establish emergency procedures for the issuance of assents in the event of the following:

- (1) A hurricane, severe storm or other disaster has caused severe and widespread damage in portions of CRMC jurisdiction; and
- (2) The Governor has submitted a formal request to the President to declare areas within CRMC jurisdiction a major disaster area; and
- (3) The Executive Director of the CRMC determines the probable number of applications for CRMC assents resulting directly from the disaster will cause significant delays in the orderly processing of assents and, thereby impose an undue hardship on disaster victims and other applicants; and
- (4) The CRMC shall provide adequate public notice of its decisions to impose emergency procedures.

B. The Council encourages other state agencies and each coastal community to adopt emergency permitting procedures equivalent to those of the CRMC in order to speed appropriate reconstruction and minimize adverse economic and environmental impacts.

C. The Council shall impose a temporary moratorium to remain in effect for a maximum of 30 days from the disaster declaration. The purpose of the moratorium shall be to provide the Council and affected coastal communities with adequate time to assess damages, determine changes in

natural features that may change vulnerability to damage, and identify mitigation opportunities. The temporary moratorium shall apply to the following:

- (1) Applications for new alterations and activities requiring Council Assent, which do not result from the disaster.
- (2) Reconstruction of all residential and associated residential structures, commercial and recreational structures in both A-zone and V-zone that were destroyed by 50% or more by storm induced flood, wave and wind damage.

D. During the moratorium, priority consideration will be given to necessary and/or emergency alterations, reconstruction, or replacement of essential public facilities, such as roads, bridges, and public utilities. The Council recognizes that a major hurricane or other storm events may severely damage or destroy infrastructure and utilities such as roads, bridges, water and sewer lines located in high hazard areas. When such damage occurs, it shall be the policy of the Council to require the review of alteration reconstruction options which may lessen or mitigate the probability of future recurrent damage.

E. During the moratorium the Executive Director of the Council shall solicit the recommendations of the Rhode Island Department of Environmental Management and the local municipalities for the purchase of open space or other mitigative responses in high damage areas and make a policy decision about repermitting according to best available options for hurricane mitigation.

F. Procedures and priorities for addressing post storm reconstruction applications after the moratorium are as follows:

- (1) Priority will be given to consideration of applications for reconstruction of structures which were physically damaged or destroyed 50 percent or more by storm-induced flooding, wave or wind damage;
- (2) Applicants for repair or reconstruction in A, B, or C flood zones, as delineated in the FEMA maps, may follow the procedures in Section 300.14 Maintenance;
- (3) Final priority will be given to any application for new alterations and activities unrelated to the disaster; and
- (4) If the Executive Director determines that a large number of post-storm applications will be received, and that the normal processing will result in an undue burden or hardship to storm victims, and the Executive Director determines there is no over-riding programmatic policy or goal to be served by holding a group of applications, then the Executive Director may, in specific instances, waive the requirements of a new Assent for structures physically destroyed 50 percent or more by storm-induced flood, wave and wind damage, and allow for Emergency Permits to be issued.

Part Two
Areas Under
Council Jurisdiction

Section 200. Tidal and Coastal Pond Waters

A. Introductory Findings

1. Rhode Islanders have a deep commitment to their coastal environment. Their concern for Narragansett Bay and the South Shore coastal ponds has been voiced in numerous ways, including support of landmark legislation in 1971 that created the Coastal Resources Management Council, endorsement of many of the efforts of environmental organizations such as Save the Bay and the Audubon Society of Rhode Island, and passage of the largest bond issue in the state's history in order to relieve chronic pollution in upper Narragansett Bay caused by the antiquated Providence municipal sewage treatment plant. The concerns of the public have in large measure been responsible for decisions not to build oil refineries in Jamestown and Tiverton, and to halt the indiscriminate destruction of salt marshes and the improper disposal of dredged spoils. Narragansett Bay is widely accepted as the state's greatest resource, and our coastal waters and shoreline are the focus not only of tourism but of efforts to attract new businesses into the state. Rhode Island strives to maintain the image of a desirable place to work and raise a family, and these attributes are inextricably bound to a varied and beautiful shoreline, where water quality and, no less important, visual quality are excellent and well protected. The qualities that make Rhode Island's coast beautiful and an unparalleled recreational resource are fully as important as the more readily quantifiable commercial and industrial water-dependent activities. The designation of large stretches of waters or coastline for conservation and low-intensity use by this Program recognizes these facts and will help maintain a high quality of coastal environment for future generations of Rhode Islanders.

2. The six categories of waters defined in this Program are directly linked to the characteristics of the shoreline, since the activities on the adjacent mainland are the primary determinant of the uses and qualities of any specific water site. Thus, Type 1 waters abut shorelines in a natural undisturbed condition, where alterations, including the construction of docks and any dredging, are considered by the Council as unsuitable. Type 2 waters are adjacent to predominantly residential areas, where docks are acceptable, but more intense forms of development, including more marinas and new dredging projects (but not maintenance dredging), would change the area's character and alter the established balance among uses. Alterations such as these would bring more intensive uses and are therefore prohibited in Type 2 waters. The waters along some 70 percent of the state's 420 miles of shoreline have been assigned to Type 1 and Type 2, and should be expected to retain their high scenic values and established patterns of low-intensity use. Type 3 waters are dominated by commercial facilities that support recreational boating. Here, marinas, boatyards, and associated businesses take priority over other uses, and dredging and shoreline alterations are to be expected. Type 4 areas include the open waters of the Bay and the Sounds, where a balance must be maintained among fishing, recreational boating, and commercial traffic. Here high water quality and a healthy ecosystem are primary concerns. The last two water use categories are assigned to areas adjacent to ports and industrial waterfronts. In these waters, maintenance of adequate water depths is essential, high water quality is seldom achievable, and some filling may be desirable. Within Type 5 ports, a mix of commercial and recreational activities must co-exist, while in Type 6 waters, water-dependent industrial and commercial activities take precedence over all other activities. The water categories described in this section are complemented by policies for shoreline types (Section 210), and the two must be combined to identify the Program's policies for a specific coastal site.

3. More than 90 percent of Rhode Island's tidal waters are classified by the R.I. Department of Environmental Management as SA, the highest water quality rating. Water pollution, however, is a major concern, with eutrophication and bacterial contamination a growing concern in the salt ponds and with all major indicators of pollution showing strong gradients down the Bay from the Providence metropolitan area. Despite the pollutants and intense fishing pressure, Rhode Island's tidal waters support large seasonal populations of a variety of finfish. In the Bay, the quahog supports a large and important commercial fishery. Recreational fishing for flounder, bluefish, and striped bass is important nearshore.

4. Rhode Island has a rich history of maritime commerce and industry. In this century, however, the once-booming urban waterfronts of the upper Bay have stagnated and declined despite major infusions of public funds to deepen the access channel to Providence to 40 feet and build new terminal facilities. During the postwar decades, oil imports have dominated waterborne commerce, but this sector has declined sharply since the mid-seventies. In 1973, the U.S. Navy announced a major pullout from its extensive facilities in the lower Bay, and by 1980 hundreds of acres of port facilities at Quonset, Davisville, Melville, and Coddington Cove had been turned over to the state. The State of Rhode Island now owns a large inventory of unutilized or underutilized port facilities. As commercial shipping has declined, recreational boating has increased. Facilities for the in-water storage of boats are in short supply, but with very few exceptions expansion of marinas into new areas could only be accomplished if remaining salt marshes and other important natural features were sacrificed. Since this is considered unacceptable by the Council, the emphasis must be on the more efficient use of existing facilities, recycling of underutilized but already disturbed sites, and improvements to public launching facilities.

5. Activities that are dependent on Rhode Island's tidal waters generate substantial economic benefits to the state. Nearly one billion dollars are generated each year by such water-related activities as marine industry, transportation and education, commercial fishing and marine recreation (Farrell and Rorholm, 1981). Substantial additional economic benefits are generated by water-enhanced residential development, tourism, and the importance of an attractive marine environment in drawing high-quality businesses to Rhode Island.

Section 200.1

Type 1 Conservation Areas

A. Definition

Included in this category are one or more of the following: (1) water areas that are within or adjacent to the boundaries of designated wildlife refuges and conservation areas, (2) water areas that have retained natural habitat or maintain scenic values of unique or unusual significance, and (3) water areas that are particularly unsuitable for structures due to their exposure to severe wave action, flooding, and erosion.

B. Findings

1. The coastline that fronts directly on Long Island and Block Island Sounds includes some of the most dynamic and naturally scenic features in Rhode Island. These include but are not limited to the South Shore barriers and headlands, the erosion-prone bluffs of Block Island, and Newport's rocky promontories. In order to adequately preserve these shorelines in these conservation areas, many activities proposed on shoreline features or in the tidal waters directly adjacent to these features must be severely restricted or prohibited.
2. Brigg's Marsh in Little Compton, Sachem Pond on Block Island, and Hundred Acre Cove in Barrington are examples of water areas which have exceptional value as waterfowl nesting and feeding habitat. Rare and unique assemblages of plants and animals and rich shellfish beds are found in these undisturbed waters. Many, but not all, water areas of well-recognized significance to wildlife are within established sanctuaries or management areas.
3. Opportunities for scientific research and education have been enhanced by the designation of a National Estuarine Sanctuary in the upper Bay, one of some 15 similar designations nationwide. The sanctuary includes Bay waters extending to the 18-foot depth contour around Patience Island, the northern half of Prudence Island, and Hope Island.
4. Valuable conservation areas are not all in clean, rural environments. For example, Watchemoket Cove in the heart of the East Providence industrial waterfront is an important waterfowl resting area, particularly during the winter months when large numbers of canvasbacks, scaup, widgeon, and black ducks are present.
5. Several stretches of shoreline within Narragansett Bay have survived the rapid proliferation of residential development during recent decades in pristine condition. Examples include the Potowomut River, the Palmer River in Barrington and Warren, and the Mt. Hope Cliffs in Bristol. It is important that as much of this land as practicable be preserved from alteration to assure that Rhode Island's rich diversity of shoreline types and high scenic value are preserved.

C. Policies

1. The Council's goal is to preserve and protect Type 1 waters from activities and uses that have the potential to degrade scenic, wildlife, and plant habitat values, or which may adversely impact water quality or natural shoreline types.
2. The mooring of houseboats and floating businesses, the construction of recreational boating facilities, filling below mean high water, point discharge of substances other than properly treated runoff water (see Section 300.6), and the placement of industrial or commercial structures or operations (excluding fishing and aquaculture) are all prohibited in Type 1 waters.
3. In Type 1 waters, activities and alterations including dredging, dredged materials disposal, and grading and excavation on abutting shoreline features are all prohibited unless the primary purpose of the alteration or activity is to preserve or enhance the area as a natural habitat for native plants and

wildlife or a beach renourishment/ replenishment project. Structural shoreline protection facilities shall not be permitted to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.

Notwithstanding the Council's prohibition against construction of recreational boating facilities in Type 1 Waters, the Council recognizes that some residential boating facilities may have pre-existed in Type 1 Waters prior to the formation of the Council. The Council's ultimate goal is to remove said structures and restore the areas involved to be free of all recreational boating facilities. Although recreational boating facilities are inconsistent with the Council's goals for Type 1 Waters, in order to provide for the equitable transition and compliance with the Council's goals pre-existing residential boating facilities may be permitted under the limited terms and conditions set forth in Section 300.4 of the RICRMP and in the Council's Pre-existing Residential Boating Facilities Program.

4. Since runoff can be a major source of pollutants from developed areas, new or enlarged point discharges of untreated runoff shall be permitted in Type 1 waters only when it is demonstrated that no reasonable alternative exists and that no significant adverse impact to the receiving waters will result. The cumulative impacts of runoff are of particular concern in Type 1 waters.

5. Applicants for Council Assents for alterations or activities in or contiguous to Type 1 waters shall describe the measures taken to mitigate impacts on the scenic quality of the area (see Section 330).

6. Activities and alterations subject to Council jurisdiction contiguous to public parks, public beaches, public rights-of-way to the shore, and conservation areas abutting Type 1 waters shall not significantly interfere with public use and enjoyment of such facilities. Where significant interference is found, the Council shall suitably modify or prohibit that alteration or activity.

Section 200.2

Type 2 Low-Intensity Use

A. Definition

This category includes waters in areas with high scenic value that support low-intensity recreational and residential uses. These waters include seasonal mooring areas where good water quality and fish and wildlife habitat are maintained.

B. Findings

1. Type 2 waters are similar to Type 1 waters in their high scenic qualities, high value for fish and wildlife habitat, and, with some exceptions, good water quality. Densely developed residential areas abut much of the waters in this category, and here docks and the activities and small-scale alterations associated with residential waterfronts may be suitable.
2. Major portions of the salt ponds along the South Shore between Watch Hill and Point Judith are assigned to Type 2 waters. Nearly all have retained their scenic and natural characteristics while accommodating residential docks, minor dredged channels, and small-scale shoreline protection structures. Each coastal pond is an individually distinct ecosystem and a unique feature of great scenic value. Continuing residential development within the watersheds of the salt ponds poses severe threats to future water quality in the form of both bacterial contamination and eutrophication. Permanent breachways built in the 1950s to provide easy access for boats to the ocean have radically altered the ecology of many of the larger ponds and are causing rapid siltation within the ponds.
3. Waters along open coasts which support low-intensity uses associated with residential areas are found along stretches of the lower Bay. An example is the Sakonnet River, which separates Aquidneck Island from Tiverton and Little Compton. The Sakonnet's waters are of high quality except for small areas adjacent to the few densely developed areas, and its shorelands are varied and picturesque, displaying large salt marshes, rocky cliffs, open agricultural fields, and wooded shoreline. The upper half of the Sakonnet River is a productive quahog ground and is fished commercially. Conchs are fished commercially throughout the river, and Almy Brook, which drains into the Sakonnet from Nonquit Pond, contains a sizable alewife run.
4. Several small riverine estuaries such as the Kickemuit River in Warren and the Pettaquamscutt (Narrow) River in Narragansett, South Kingstown, and North Kingstown are also assigned to Type 2 waters. These rivers contain extensive salt marshes and rich diversity of fish, shellfish, and waterfowl. Extensive residential development and restricted flushing combine to pose severe water quality concerns similar to those in the more developed salt ponds. Scenic values, however, remain high, and local residents are highly concerned that activities such as shellfishing and swimming are maintained and not preempted by poor water quality.

C. Policies

1. The Council's goal is to maintain and, where possible, restore the high scenic value, water quality, and natural habitat values of these areas, while providing for low-intensity uses that will not detract from these values.
2. New or deepened dredged channels and basins; new or deepened dredged channels and basins at existing marinas that result in an expansion greater than 25 percent of their capacity; new marinas and expansion of pre-existing marinas in excess of 25 percent of their capacity; the mooring of houseboats and floating businesses; industrial and commercial structures and operations (excluding fishing and aquaculture); and filling are all prohibited in Type 2 waters. The Council's intent for pre-existing marina operations located in Type 2 Waters is to allow for their continued maintenance and viability as such operations. Maintenance dredging, dock reconfigurations, activities such as travellift operations and other best available technologies, and other ancillary activities necessary to maintain the operational viability of the facility, should be expected to occur at pre-existing marina operations in

these waters. Structural shoreline protection facilities should not be prohibited. Such allowances will only be instituted at marina facilities with approved marina perimeters (see Section 300.4.E) and will be reviewed in accordance with applicable standards of Section 300.4.E. In order to be eligible for this policy, applications for marina perimeters must be submitted to the CRMC by April 1, 1994.

Current capacities of pre-existing marinas, as found in CRMC-approved special area management plans, and similar management plans, should be recognized and no attempt should be made to require these pre-existing marinas to meet their capacities as of January 1981.

3. Residential boating facilities, public launching ramps, and structural shoreline protection facilities may be permitted in Type 2 waters, provided it can be demonstrated that there will be no significant adverse impact to coastal resources, water dependent uses or public's use and enjoyment of the shoreline and tidal waters of the State. It is the Council's policy that one or more of the following conditions describe a situation, condition, or proposal that is deemed to have a significant adverse affect on Rhode Island's coastal resources and therefore is grounds for denial or modification of an application for an Assent:

- (a) The construction of the proposed facility may cause significant impacts on coastal wetlands and other public trust resources (e.g. shellfish, finfish, submerged aquatic vegetation, etc.);
- (b) Access to the construction site is not available without causing significant impacts to Rhode Island's coastal resources (e.g. coastal wetlands);
- (c) The proposed facility would significantly interfere with and/or impact other public trust uses of the tidal or inter-tidal areas of the shoreline (e.g. interfere with navigation); or
- (d) Water depths adjacent to the site would require dock span lengths in excess of the standards contained in Section 300.4.E in order to allow normal and appropriate use of the dock by a vessel.

4. Applicants for Council Assents for alterations or activities in Type 2 waters shall describe the measures taken to mitigate impacts on the scenic quality of the area (see Section 330).

5. Since runoff can be a major source of pollutants from developed areas to poorly flushed estuaries, new or enlarged discharges shall be permitted into the following Type 2 waters only when it is demonstrated that no reasonable alternative exists and that no significant adverse impact to the receiving waters will result:

- (a) Winnapaug Pond
- (b) Quonochontaug Pond
- (c) Ninigret Pond (Charlestown Pond)
- (d) Green Hill Pond
- (e) Potters Pond
- (f) Point Judith Pond
- (g) Nannaquaket Pond
- (h) Palmer River
- (i) Kickemuit River
- (j) Fishing Cove (Wickford)
- (k) Pettaquamscutt River

6. Activities and alterations subject to Council jurisdiction contiguous to public parks, public beaches, public rights-of-way to the shore and conservation areas abutting Type 2 waters shall not significantly interfere with public use and enjoyment of such facilities. Where significant interference is found, the Council shall suitably modify or deny that alteration or activity.

Section 200.3

Type 3 High-Intensity Boating

A. Definition

This category includes intensely utilized water areas where recreational boating activities dominate and where the adjacent shorelines are developed as marinas, boatyards, and associated water-enhanced and water-dependent businesses.

B. Findings

1. Marinas are the principal means by which the boating public gains access to tidal waters, and therefore provide an important public service. Only beachgoing involves more Rhode Islanders in a recreation activity that makes direct use of tidal waters. In 1978, some 65 percent of all slips and moorings were within marinas and yacht clubs, and nearly all of these are within Type 3 waters.
2. Marinas face a number of difficulties. The boating season in Rhode Island is confined to six months, with most of the activity concentrated in June, July, and August. Many marina operations have difficulty in generating income during the remainder of the year and are economically marginal businesses. Nearly all the existing marinas were built when the value of waterfront property was far lower than it is today, and the pressure is mounting to convert marginal operations occupying high-value waterfront land to more profitable uses.
3. Areas suitable for marinas are severely limited, and the steady growth in the number of recreational boats is increasing the competition for the available facilities. Unfortunately, sheltered waters suitable for marinas are limited, and most of the remaining potential sites contain salt marshes that could only be developed at great environmental as well as high economic costs. Persons proposing new marinas are also hampered by local zoning and high land costs, and neighborhood opposition is frequently vociferous. The solution to growing demand is therefore to use the available facilities more efficiently and to recycle already altered sites in the upper Bay and on excessed Navy holdings, such as Allens Harbor in North Kingstown and along the Aquidneck west shore.
4. In many locations, marina operators are plagued with siltation problems and find it difficult to find acceptable sites for their dredged materials. Dredging problems can be best solved if the marina operators within a cove or harbor join together to finance the dredging and find a common local solution to the disposal problem. Options such as marsh building, beach nourishment, or the transport of materials to a more distant location become technically and economically feasible when a sufficiently large volume of material is to be moved and a united effort to solve the problem is organized.
5. The growth in the size of the recreation fleet, limited berthing opportunities, and the increasing expense of in-water storage have contributed to rapid growth in the number of trailered boats. This has placed a heavy demand on public launching ramps, which are in short supply and many of which are in deteriorating condition or have limited parking capacity.
6. Type 3 waters and the adjacent shoreline, while utilized intensely for the needs of the recreational boating public, nevertheless retain numerous natural assets of special concern to the Council. These include coastal wetlands, and the value these areas provide as fish and shellfish spawning and juvenile rearing grounds. These factors must be weighed when the Council considers proposals that may impact these assets.

C. Policies

1. The Council's goal is to preserve, protect, and, where possible, enhance Type 3 areas for high-intensity boating and the services that support this activity. Other activities and alterations will be permitted to the extent that they do not significantly interfere with recreational boating activities or values.
2. The highest priority uses of Type 3 waters and adjoining land areas within the Council jurisdiction are (a) marinas, mooring areas, public launching ramps, and other facilities that support recreational boating and enhance public access to tidal waters; and (b) boatyards and other businesses that service recreational boaters.
3. The Council encourages marinas to seek innovative solutions to increased demands for moorings, dockage, and storage space, and allows marina operators to alter the layout of their facilities (see Section 300.4).
4. The Council shall encourage more and improved public launching facilities by protecting existing facilities from interference by other uses subject to Council jurisdiction, identifying appropriate sites for new ramps and parking areas, and working with other agencies to build new ramps and maintain existing facilities.

Section 200.4

Type 4 Multipurpose Waters

A. Definition

This category includes (1) large expanses of open water in Narragansett Bay and the Sounds which support a variety of commercial and recreational activities while maintaining good value as a fish and wildlife habitat; and (2) open waters adjacent to shorelines that could support water-dependent commercial, industrial, and/or high-intensity recreational activities.

B. Findings

1. The open waters of Narragansett Bay and the Sounds are used for a number of purposes including commercial and sport fishing, boating, commercial shipping, aquaculture, and scientific research. These areas are highly productive of fish and shellfish, and support substantial commercial fisheries including a small dragger fishery, seasonal lobstering, and shellfishing. The overwhelming majority of activity is in shellfishing, particularly quahogging. The quahog fishery has grown steadily over the past decade, and in 1980 the reported landings of quahog meats peaked at an all-time high of 3.5 million pounds, worth over \$11 million. It is generally accepted that the reported catch is substantially less than the actual. In 1980, Rhode Island supplied more than one-quarter of the nation's total harvest, and the fishery provided full-time employment to some 1,300 fishermen and part-time employment to an additional 2,300. The boundaries of principal grounds for the quahog trawler and lobster fisheries are shown in a general manner on maps in "An Aquaculture Management Plan for Rhode Island Coastal Waters," prepared in 1981 by W.J. Lapin of the Department of Environmental Management. A significant portion of the Bay's quahog beds is in upper Bay areas permanently closed to shellfishing, and many of the currently most productive grounds are closed for much of the year. Water pollution is thus a major threat to the Bay's shellfisheries.
2. In the early years of this century, the Bay supported a lucrative oyster culture industry. In 1910, some 20,000 acres of Bay bottom were leased to private growers. Conflicts between oyster growers and commercial shellfishermen were intense. The oyster industry began a rapid decline in the 1930s and ended in 1957. In the late 1970s, a new form of aquaculture using intensive off-bottom culture methods was proposed for several locations. By mid-1982 three leases had been granted by the Council in the Bay and in the coastal ponds. Commercial fishermen oppose the re-establishment of aquaculture in the Bay fearing encroachment on their grounds and impacts on shellfish prices. Aquaculturists argue that their intensive methods need not compete with traditional fisheries for prime grounds and that aquaculture could provide the state with a new industry, providing jobs and revenues from a renewable native resource. Aquaculturists use floating structures such as rafts or lines suspended from buoys or may conduct their activities on the bottom. Most aquacultural activities involve fixed and relatively permanent structures. While the species potentially suitable for aquaculture are almost unlimited, the species of current interest for Narragansett Bay are mussels, oysters, and quahogs.
3. Boaters and sport fishermen are another major user group of Type 4 waters. The majority of the state's estimated 33,000 (1979) recreational boats are used on the Bay. Sport fishermen take large numbers of flounder, bluefish, and striped bass each year. The scenic qualities of the Bay, good water quality, and control over preemptive uses are essential to all recreational users.
4. A major concern to all users of Type 4 waters is good water quality. The major source of all principal pollutants to the Bay, including pathogenic bacteria, nutrients, petroleum hydrocarbons, metals, and exotic organic chemicals, are the urban and industrial centers that discharge into the Providence River. Strong down Bay gradients are seen in both the sediments and water column for all these pollutants. The long-term combined impacts of pollutants on the Bay ecosystem are not well understood. There is evidence, however, that pollutants that enter the Providence River may be impacting the Bay as far south as Hope Island. The major sources of pollutants to the Bay are the rivers that drain some 2,000 square miles in Rhode Island and Massachusetts, the effluents from sewage

treatment plants, and urban runoff

C. Polices

1. The Council's goal is to maintain a balance among the diverse activities that must coexist in Type 4 waters. The changing characteristics of traditional activities and the development of new water-dependent uses shall, where possible, be accommodated in keeping with the principle that the Council shall work to preserve and restore ecological systems.
2. The Council recognizes that large portions of Type 4 waters include important fishing grounds and fishery habitats, and shall protect such areas from alterations and activities that threaten the vitality of Rhode Island fisheries.
3. Aquaculture leases shall be considered if the Council is satisfied there will be no significant adverse impacts on the traditional fishery.
4. The Council shall work to promote the maintenance of good water quality within the Bay. While recognizing that stresses on water quality will always be present in urban areas such as the Providence River, the Council shall work to promote a diversification of activities within the upper Bay region through the water quality improvement process.

Section 200.5

Type 5 Commercial and Recreational Harbors

A. Definition

These waters are adjacent to waterfront areas that support a variety of tourist, recreational, and commercial activities. They include all or portions of the following harbor areas:

- (1) Newport Harbor
- (2) Bristol Harbor
- (3) Warren waterfront
- (4) Wickford Harbor
- (5) Old Harbor, Block Island
- (6) East Greenwich Harbor
- (7) Watch Hill Harbor

B. Findings

1. Type 5 waters all support a vibrant mix of commercial and recreational waterfront activities. All have important historic value that must be preserved. Competition for space is intense in all Type 5 waters, commercial fishing vessels, recreational boats, and ferries compete for limited water space, while waterfront businesses of many varieties vie for a position on the waterfront. The visual quality of these areas is highly important, since all are centers for tourism.

C. Policies

1. The Council's goals are to maintain a balance among diverse port-related activities, including recreational boating, commercial fishing, restaurants, and other water-enhanced businesses; to promote the efficient use of space; and to protect the scenic characteristics that make these areas valuable to tourism.
2. The highest priority uses of Type 5 waters and adjoining land areas within Council jurisdiction are (a) berthing, mooring, and servicing of recreational craft, commercial fishing vessels, and ferries; (b) water-dependent and water-enhanced commerce, including businesses catering to tourists; (c) maintenance of navigational channels and berths, and removal of obstructions to navigation; and (d) activities that maintain or enhance water quality and scenic qualities, including the preservation of historic features. The Council shall suitably modify or prohibit activities that significantly detract from or interfere with these priority uses.
3. Applicants for Council Assents for alterations or activities in Type 5 waters shall describe measures taken to mitigate impacts on the scenic quality of the area (see Section 330).

Section 200.6

Type 6 Industrial Waterfronts and Commercial Navigation Channels

A. Definition

These water areas are extensively altered in order to accommodate commercial and industrial water-dependent and water-enhanced activities. They include all or portions of the following areas:

- (1) Port of Providence
- (2) Tiverton shipping area
- (3) Quonset Point and Davisville
- (4) Coddington Cove
- (5) Melville
- (6) Galilee and Jerusalem
- (7) Westerly waterfront

B. Findings

1. The Port of Providence extends some ten miles along the Providence and East Providence shores of the Providence River and is the state's principal general cargo and petroleum port. Import and export of products moving through the port have a major impact on the state's economy and generate jobs and economic activity in many other sectors. In fiscal 1981, 5.3 million tons of petroleum, steel, cement, automobiles, lumber, scrap metal, and other non-petroleum commodities were received or shipped. The Providence shipping channel is dredged to an authorized depth of 40 feet. Large segments of shoreline and water in the port area are in derelict condition and littered with abandoned piers and sunken barges.

Efforts to expand and improve the port have been underway for many years. In East Providence, across the channel from the Providence municipal wharf, the Providence and Worcester Railroad Company has made large investments in a major new landing pier. On the Providence side, infusions of public funds have brought many improvements, but much remains to be done. Priority problems include the difficulty in finding acceptable sites for dredged materials produced by maintaining or improving existing channels and berths, and the need to remove some 26,000 cubic yards of debris that forestalls the reuse of presently derelict areas. Coordinated planning and development efforts are essential to any initiative to improve the port and make it more competitive.

2. In the 1970s large-scale port facilities and waterfront industrial sites at Quonset-Davisville, Coddington Cove, and Melville were declared surplus by the Navy. These sites are available for redevelopment principally through the R.I. Port Authority. Some of the port facilities in these areas are in disrepair, and will require major infusions of capital if they are to be reused, while others are in good condition and are in active use for shipbuilding and other water-dependent purposes. These facilities, when combined with the derelict waterfront in the Providence River, give the state a large inventory of unutilized or underutilized port facilities.

3. Rhode Island supports a thriving offshore commercial fishing industry based at the ports of Galilee and Newport. Galilee is home port to some 160 vessels, which landed 56 million pounds of fish and shellfish worth \$11.7 million in 1982. The port facilities at Galilee are owned by the state and managed by the Department of Environmental Management. A large portion of the 21 million pounds of fish and shellfish worth \$13 million (1979) landed at Newport is caught by vessels that have home ports out of state. Fishing vessels berthing at Newport utilize facilities managed under lease by the Department of Environmental Management. Rhode Island's commercial fishing fleets are growing but are severely hampered by limited berthing and unloading facilities. An expansion and improvement program of the state facilities at Galilee and Newport has been underway for a decade.

4. Nearly all Rhode Island's boating and shipping facilities require periodic dredging to maintain adequate water depths in channels and turning basins and at berths. Until the mid-sixties, dredge spoils were disposed with little concern for environmental impacts. Salt marshes were filled, new sandbars

and spits created, and the largest project in recent history, the deepening of the Providence channel from 30 to 40 feet, left a large spoil mound off Brenton Reef in the Sound and a legacy of vehement opposition by fishing interests to any offshore disposal. For the past two decades, finding acceptable solutions to dredged materials disposal needs has proved difficult. Salt marsh building, bulkheading, and beach nourishment are frequently viable solutions where small volumes are concerned, but offshore dumping may be the only cost-effective solution for large projects. All solutions raise concerns, and energetic opposition is frequently organized. Finding acceptable, environmentally sound solutions to dredged materials disposal remains an important challenge for the coastal program.

C. Policies

1. The Council's goals for Type 6 waters and adjacent lands under Council jurisdiction are to encourage and support modernization and increased commercial activity related to shipping and commercial fisheries.
2. Highest priority uses of Type 6 waters and adjacent lands under Council jurisdiction are: (a) berthing, loading and unloading, and servicing of commercial vessels; (b) construction and maintenance of port facilities, navigation channels, and berths; and (c) construction and maintenance of facilities required for the support of commercial shipping and fishing activities.

The Council shall prohibit activities that substantially detract from or interfere with these priority uses.

3. The Council will encourage and support port development and modernization and increased economic activity in the marine industries by participating wherever possible in the joint long-range planning and development activities with other state and local agencies, including the R.I. Port Authority, the Department of Environmental Management, and coastal cities and towns.
4. Through its Special Area Management Plan for Providence Harbor, and other planning initiatives, the Council will identify and designate acceptable disposal solutions and sites adequate to meet the need for dredging, and provide the assurances required by industry that channel depths will be maintained, while minimizing environmental effects. The solutions may be more costly than older disposal practices, and may involve innovative technology. The Council will also work in cooperation with the Cities of Providence and East Providence and the Corps of Engineers toward achieving the removal of dilapidated piers and abandoned barges, which presently preclude economic use of large areas within Providence Harbor.

Section 210. Shoreline Features

A. Introductory Findings

1. A great variety of geologic forms can be found where tidal waters meet the land. Where a coast is exposed to the forces of the open ocean, as along the South Shore, sea cliffs and wide sand or gravel beaches predominate. In sheltered waters, salt marshes and mud flats are common. The shoreline of Narragansett Bay is composed principally of narrow beaches of pebbles and cobbles that are backed by an often unvegetated bluff of unconsolidated glacial sediment. Rhode Island's diversity of shoreline types provides a wealth of visually distinct areas, each of which supports different mixtures and intensities of use. This diversity must be recognized and maintained. The postwar decades have brought an explosion in the development of formerly rural coastal lands, and by the early 1980s most of the waterfront property that could be readily developed had been subdivided. Nearly all the remaining available parcels are within existing developments or they present natural constraints to the developer, such as poorly draining soils or steep slopes. Despite the recent surge of building along the lower Bay and South Shore, the coastline has retained much of its beauty. The appearance of long stretches of the coast from the water and vantage points along the shore provides a sense of natural beauty and open land; structures are not overly obtrusive.

This quality, however, could be lost over the next few decades as the remaining farmland and estates, now worth great sums, come on the market and are sold off as house lots. Another major concern for the Council is the cumulative impact of individually minor alterations, particularly those brought about by residential development, on the qualities of the coastal environment.

2. All shoreline systems are dynamic, and change their shape and character in response to storms, tidal currents, human modifications, and the gradual rise in sea level. Twenty-five thousand years ago, at the time of maximum advance of the last glacial ice sheet, the ocean shoreline of Rhode Island was displaced over 15 miles seaward of Block Island. Sea level was lowered about 300 feet because ocean water was locked up in the glacial ice. Sea level began to rise as the ice melted, displacing the shoreline northward as the sea inundated Block Island Sound, and later, Narragansett Bay. Sea-level rise is also due to subsidence of the land and thermal expansion of ocean waters.

3. A principal concern of waterfront property owners is frontal erosion and storm-surge flooding. The susceptibility of any length of shoreline to erosion is determined by the type of shoreline (see Table 3) and its exposure to storm surge and waves during severe storms and hurricanes. Storm surge occurs when a combination of low atmospheric pressure and the force of high winds over a large expanse of open water causes sea level to rise dramatically along the coast, particularly at the head of funnel-shaped embayments like Narragansett Bay. During the 1938 hurricane, the storm surge forced water levels 12 feet above mean high water at Point Judith and over 13 feet at Providence. Waves 10 feet high and more were measured on top of the surge level. Such events are not rare; the state has been struck by 73 hurricanes in the past 350 years, 13 of which have caused severe flooding and erosion. In this century, the 1938 hurricane left 311 dead and nearly 2,000 houses destroyed, and Hurricane Carol killed 15 people and destroyed 3,800 houses in 1954.

4. In Rhode Island, most shoreline erosion takes place during moderate and severe storms, with recovery of sediment to beaches and foredunes in intervening periods. Many of today's shorefront residents acquired property in the middle 1980's during a period of relatively few storms and are unfamiliar with sustained periods of storminess or high category hurricanes. Most private shoreline protection structures which predate the RICRMP are underbuilt or poorly designed with respect to major storms.

5. The federal flood insurance program guarantees subsidized insurance for buildings that meet defined construction standards in flood hazard areas. This program has encouraged building in some highly hazardous areas contrary to good coastal management practices.

Table 3. Shoreline Types and Their Susceptibility to Erosion (Adapted from Boothroyd and Al-Saud, 1978).

(A, most susceptible; E, least susceptible)

<i>Type</i>	<i>Characteristics</i>	<i>Example areas most susceptible to erosion due to their exposure</i>
<i>Beaches (A)</i>	Unconsolidated sand, gravel or cobbles, backed by a headland bluff.	Oakland Beach (Warwick) Matunuck Beach (S. Kingston) Scarboro Beach (Narragansett)
<i>Barrier Spits (A)</i>	Unconsolidated sediment that forms a spit parallel to the mainland and separated from it by a marsh or pond; Sand dunes are often present.	All South Shore barriers South side Conimicut Pt. (Warwick) Barrington Beach (Barrington) Jenny Pond spit (Prudence Island) Briggs Marsh barrier (Little Compton)
<i>Headland Bluffs of Glacial Outwash (B)</i>	Gravel, sand, silt, and clay deposited in glacial rivers and lakes as ice melted 15-18,000 years ago.	Buttonwoods (Warwick) Occupessatuxet Neck (Warwick) Coggeshall (Warren) Island Park (Portsmouth)
<i>Headland Bluffs of Glacial Till (C)</i>	Unsorted mixture of gravel to clay deposited in contact with glacier ice.	Northeast side of Pt. Judith (Narragansett) Briggs Pt. (Little Compton)
<i>Soft Bedrock (D)</i>	Sedimentary rock usually in the form of terraces or scalloped cliffs.	East shore of the Bonnet (Narragansett) East facing segment of the Newport Cliffs
<i>Hard Bedrock (E) and Discontinuous Bedrock</i>	Hard bedrock is composed of granite and metamorphic rocks; Discontinuous bedrock, either hard or soft, often extends from the shore as a natural breakwater.	Least susceptible to erosion

Section 210.1 Coastal Beaches

A. Definitions

1. Coastal beaches include expanses of unconsolidated, usually unvegetated sediment commonly subject to wave action, but may also include a vegetative beach berm. Beaches extend from mean low water landward to an upland rise, usually the base of a dune, headland bluff, or coastal protection structure, pilings or foundation.

B. Findings

1. Beaches are dynamic, flexible features. The character of a beach is determined primarily by the particle size of the sediment and by the amount of wave and current action. Beaches are formed by sediment that is carried by waves and longshore currents from eroding headlands, from up current beaches in the longshore system, and from the subtidal shoreface portion of the shoreline. It is often difficult to establish the source of sediment for an individual beach, but shoreline protection facilities such as bulkheads, seawalls, groins, or jetties can alter significantly the volume supplied by suppressing the source or altering the transport of sediment along the shore. Such structures can retard erosion at one site while increasing erosion rates on an adjoining property. Beaches alter their volume and shape in response to regional weather patterns. During stormy periods, large waves erode the beach and foredune zone and deposit sediment offshore on the subtidal shoreface as bars or platforms. These bars function to dissipate wave energy and thus retard erosion of the intertidal beach. Sediment is transported from the shoreface back to the beach during periods of fair-weather by small waves and a broad berm is deposited. There are usually fewer storms in the summer than the other three seasons, thus the beach (berm) has more volume at that time; however, the passage of hurricanes may interrupt this trend. Longshore currents generated in the surf zone by waves striking the beach at an angle transport sediment in the direction of the open angle. Coastal protection structures that protrude onto the berm may interrupt the transport of sediment along the beach, resulting in deposition on the up current side and increased erosion down current of the structure.
2. All beaches associated with barriers along the ocean shore and several isolated beaches within the Bay are important recreational resources that are used by some 100,000 residents and tens of thousands of out-of-state tourists on hot summer days.

C. Policies

1. The Council's goals are (a) to preserve the qualities of, and public access to those beaches which are an important recreational resource (adjacent to Type 1 and 2 waters); (b) to prevent activities that will significantly disrupt longshore and/or onshore-offshore beach processes, thereby creating an erosion or flooding hazard; and, (c) to prevent construction in high hazard areas; and (d) to protect the scenic and ecologic value of beaches.
2. Alterations to beaches adjacent to Type 1 and Type 2 waters are prohibited except where the primary purpose of the project is to preserve or enhance the area as a natural habitat for native plants and wildlife. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.
3. Alterations to beaches adjacent to Type 3, 4, 5, and 6 waters may be permitted if: (a) the alteration is undertaken to accommodate a designated priority use for the abutting water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; (c) only the minimum alteration necessary to support the designated priority use is made; (d) there is no change in the usage of the property; (e) there is no change in the footprint of existing structures; and (f) the construction will meet all current and applicable policies, standards, and requirements of the RICRMP.

4. Vehicular use of beaches, where not otherwise prohibited or restricted by property owners or by private or public management programs, is permitted only under the following conditions:

(a) Motorcycles, minibikes, snowmobiles, all-terrain motorized cycles and tricycles are prohibited except for authorized management-related vehicles; and

(b) A Coastal Resources Management Council annually renewable use permit is required for all vehicles. Such permits may be obtained for a fee subject to the following requirements and conditions. In the event these requirements and conditions are not met, the use permit shall be subject to revocation by the Council or its agents.

- (1) Vehicles shall have all documentation and registration necessary for operation on the public highways of this state.
- (2) All permit applicants shall exhibit proof of current liability insurance coverage.
- (3) All persons operating said vehicles shall have valid operator licenses.
- (4) Maximum speed on all beaches shall not exceed 10 mph. Maximum speed on beaches shall not exceed 5 mph when approaching pedestrians.
- (5) Ruts or holes caused by vehicles shall be filled and debris removed.
- (6) Headlights shall be used by all vehicles while in motion between sunset and sunrise.
- (7) Riding on or driving from any position outside the vehicles is prohibited.
- (8) Vehicles are prohibited on swimming beaches during the period they are protected by lifeguards and in operation.
- (9) Vehicles shall be at all times subject to town ordinances and all regulations restricting the use of private, state and federal properties.
- (10) Vehicles are prohibited from entering areas which have been closed through signage and/or roped-off for the protection of beach nesting bird species including Federally-protected Piping Plover and State listed Least Tern. Such closures may occur on a temporary basis from April through August and are established on an as-needed basis by the US Fish and Wildlife Service based on nesting activity in the area. Information regarding such closures may be obtained by calling the US Fish and Wildlife Service at (401) 364-9124 or the CRMC at (401) 783-3370. Vehicles are also prohibited from entering areas closed through signage and/or roped-off to promote dune restoration, invasive species control and dune or beach re-vegetation efforts.

5. The Council requires, for the operator's safety and benefit, that every vehicle operated on a beach carry the following equipment (in good working order):

- (a) shovel (heavy-duty or military entrenching tool);
- (b) tow rope or chain (15 feet, load strength of 1,800 lbs., chain size 5/16");
- (c) jack and support stand (minimum 18" x 18" x 5/8", plywood);
- (d) street legal tires (4-ply tread, 2-ply sidewalls) - snow or mud tires are not recommended;
- (e) spare tire;
- (f) low-pressure tire gauge (0-20 lbs.);
- (g) first aid kit;

- (h) fire extinguisher;
- (i) appropriate emergency signal devices and/or two way radio; and
- (j) flashlight.

D. Prohibitions

1. The construction of new structures other than accessways, walkover structures, and beach facilities, are prohibited in setback areas.
2. The use of plastic snow-fencing is prohibited due to the hazards presented to fish, marine mammals, and other wildlife in the aftermath of a storm event.
3. Alterations to beaches adjacent to Type 1 and Type 2 waters are prohibited except where the primary purpose of the project is to preserve or enhance the area as a natural habitat for native plants and wildlife.

Section 210.2

Barrier Islands and Spits

A. Definitions

1. Barriers are islands or spits comprised of sand and/or gravel, extending parallel to the coast and separated from the mainland by a coastal pond, tidal water body, or coastal wetland. In addition to a beach, barriers have, in most cases, a frontal foredune zone and often, backbarrier dune fields. The lateral limits of barriers are defined by the area where unconsolidated sand or gravel of the barrier abuts bedrock or glacial sediment. This definition of a barrier system is commonly associated with many geomorphic descriptors. These descriptors include, but are not limited to, barrier islands, bay barriers, and spits. Spits are further described as tombolo, shingle, cusate, and flying spits. The terms “bar” and “ridge” were once used to describe a barrier system, but have since been replaced with the term “barrier”. Many of the state’s barriers have been mapped and assigned by the Coastal Resources Management Council to three categories, as listed in Table 4. The barriers or portions thereof designated by the federal government as undeveloped pursuant to their criteria, under the Coastal Barrier Resources Act of 1982 (Public Law 97-348), are noted in Table 4. In these federally designated areas, flood insurance for most forms of construction is not available.
2. Undeveloped Barriers are essentially free of commercial/industrial buildings, (excluding public utility lines) houses, surfaced roads, and structural shoreline protection facilities.
3. Moderately Developed Barriers are those that are essentially free of houses, commercial/ industrial buildings and/or facilities (excluding utility lines) that contain surfaced roads, recreational structures, and/or structural shoreline protection facilities.
4. Developed barriers contain houses and/or commercial/industrial structures; they may also contain surfaced roads and structural shoreline protection facilities. Maps of designated barriers are available for inspection at the offices of the Coastal Resources Management Council.

B. Findings

1. Rhode Island’s South Shore coastal ponds and a frequently low-lying mainland are protected from the forces of the open ocean by a chain of low, narrow barriers. Their importance as buffers against storms, the continuing pressures to build upon them and a long history of disasters during hurricanes have made the regulation of activities on barrier a primary concern of the Coastal Resources Management Council. Several barriers that had all structures destroyed in 1938 and 1954 are again developed.
2. The flexibility of barriers permits them to withstand the severe forces of erosion to which they are exposed. All ocean-fronting barriers are migrating inland in response to those natural erosion forces and to sea-level rise. The migration process takes the form of “rolling over,” whereby sand eroded from the ocean beach is transported by storm-surge overwash water and deposited on the barrier and in the coastal lagoon landward of the barrier. The peat sometimes seen along the ocean shore of barriers is evidence of the past existence of a marsh that once flourished behind an older, more seaward barrier. This same flexibility makes barriers particularly ill-suited to human occupation. Not only do buildings interfere with foredune growth but during major hurricanes debris from shattered structures is swept inland, causing additional destruction on the barrier and on adjacent low-lying mainland areas, increasing property damage, and complicating cleanup efforts. Sixty-five percent of Rhode Island’s 27.3 miles of ocean-fronting barriers are undeveloped. The recreational opportunities and uniquely beautiful open space they provide are of growing importance in an increasingly developed region.
3. The damage that barrier islands and spits can sustain in major storm events is significant and as such they are considered high hazard areas. During actual storm events, high hazard areas can create dangerous situations even for emergency response personnel and as such all personnel, including emergency response personnel, should be kept out of these areas during major storm events.

4. Within Narragansett Bay there are several small barriers that are also highly susceptible to damage during major storms. With few exceptions, these barriers have not been developed and provide locally important natural areas of great beauty and often considerable recreational value.
5. In some cases barrier islands and spits do not have dunes associated with them. For the purposes of measuring setbacks, the feature shall be the coastal beach, dike, or revetment, whichever results in a greater setback.
6. The Council accepts climate change models that indicate that sea level rise rates will accelerate and it is likely that the frequency of intense storms will increase as global temperatures rise (IPCC 2007). The combination of more severe storms and higher sea levels will impact the barriers. Storm surge overwash is the mechanism that causes barriers to migrate landward and also increase in elevation (Otvos and Carter 2007; Riggs and Ames 2007). This increased elevation will become increasingly important as sea level rises. Studies of the underlying geology, sediment supply and coastal processes to barrier systems in the Outer Banks and the Gulf of Mexico point to a threshold, that once past, leads to barrier disintegration (Culver et. al. 2007; Sallenger et. al. 2007). Shoreline protection structures are particularly unsuitable for construction on the barriers because these structures interfere with the overwash processes that supply sediment to the back barrier, eventually leading to a situation where the barrier does not build in elevation and is much more likely to breach or drown in place.

C. Policies

1. On barriers classified as undeveloped in Table 4, the Council's goal is to preserve, protect, and where possible, restore these features as conservation areas and as buffers that protect salt ponds and the mainland from storms and hurricanes.
2. On barriers classified as developed in Table 4, the Council's goal is to ensure that the risks of storm damage and erosion for the people inhabiting these features are minimized, that activities that may reduce the effectiveness of the barrier as a storm buffer are avoided, and that associated wetlands and ponds are protected.
3. On Barriers classified as Moderately developed in Table 4, the following policies shall apply:
 - a) New development is prohibited on Moderately Developed Barriers except where the primary purpose of the project is restoration, protection or improvement of the feature as a natural habitat for plants and wildlife or as allowed under paragraph (c) of this section;
 - b) Existing roads, bridges, utilities and shoreline protection facilities may be maintained only, in accordance with the requirements of Section 300.14;
 - c) Existing recreational structures may be altered, rehabilitated, expanded or developed (as defined in the glossary of the (RICRMP) according to the following standards:
 - i) Any expansion of or development activities associated with existing recreational structures shall not occur within or extend into any flood zone designated as V on the most current Federal Insurance Rate Maps, or as established by the Federal Emergency Management Agency;
 - ii) All activity shall be confined to the existing footprint of disturbance; for the purposes of this section, the footprint of disturbance shall be defined as that area encompassed by the perimeter of the structural foundation and/or areas determined by the CRMC to be substantially altered due to associated structures, excluding dunes, wetlands and areas encompassed within pertinent setback and buffer zone requirements of this program;
 - iii) Any proposed expansion of existing recreational structures shall be limited to an area equal to 25% of the square footage of the ground floor area encompassed by the structural foundation of the existing building as of June 23, 1983; associated structures shall not be used in calculating existing area;

- iv) The activity shall meet or exceed all relevant standards for the appropriate flood zone designation; and
 - v) All activities shall be subject to relevant setback and buffer zone requirements of this program, including accessory structures such as decks, porches, walls, boardwalks, swimming pools, roads, driveways, parking lots and other structures integral to or ancillary to the existing recreational structure.
4. Alterations to undeveloped barriers are prohibited except where the primary purpose of the project is protection, maintenance, restoration or improvement of the feature as a natural habitat for native plants and wildlife. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.
 5. The Council recognizes the highly dynamic nature of barriers and that storms may cause sudden and significant changes to the geomorphic form of these coastal features. Accordingly, large scale public infrastructure improvements and dense development is inappropriate. Therefore, except as provided for in D.9 below, the construction or expansion of new infrastructure or utilities shall be prohibited on all barriers including water, gas and sewer lines. It is not the intention of these policies to apply to individual, on-site water supply systems or individual sewage disposal systems, or gas lines. The use of plastic snow-fencing on all barriers is prohibited.
 6. It is the Council's policy to assure that all construction permitted on developed barriers is undertaken to provide for the greatest physical security of the inhabitants of the barrier and adjoining mainland and to maintain, to as great an extent as possible, the qualities of the adjacent coastal pond and wetlands. (See detailed regulations for construction on dunes and beaches in Section 210.1, flood hazard areas in Section 300.3, and other applicable policies and standards in the Coastal Resources Management Program and special area management plans). The construction of new buildings is prohibited on developed barriers on which only roads, utility lines, and other forms of public infrastructure were present as of 1985.
 7. With the exception of boardwalks and snow fencing utilized to trap sand, all residential and non-water-dependent recreational, commercial, and industrial structures on undeveloped barriers physically destroyed 50 percent or more by storm-induced flooding, wave or wind damage may not be reconstructed regardless of the insurance coverage carried.
 8. Persons utilizing undeveloped beaches are required to observe the following rules:
 - (a) Destruction or removal of signs, snow fencing, or other sand-stabilizing devices is prohibited; camping is prohibited unless in vehicles equipped with a self-contained toilet.
 - (b) Vehicles are permitted only on marked roads or trails and on the beach. Vehicles that drive on the beach and designated unstabilized trails on undeveloped barriers shall abide by the policies found in Section 210.1.
 - (c) Persons shall be at all times subject to applicable town ordinances and regulations restricting the use of private, state, or federal properties.
 9. Existing recreational structures, such as beach pavilions, located on undeveloped and moderately-developed barriers that enhance the public's access to the water and generate tourism revenue for the State of Rhode Island may be permitted to be re-established in the event that they are physically destroyed 50% or more as a result of storm induced flooding, wave, or wind damage, provided that:
 - (a) applicable policies and standards of the RICRMP are met; and, (b) public access to the shore is enhanced. Where possible, the reconstruction of these structures shall be behind the foredune zone as defined in Section 210.1. Any reconstruction of these facilities shall be limited to the square footage of the ground floor area encompassed by the structural foundation of the existing (associated structures shall not be used to calculate this area).

10. All policies contained in RICRMP Section 210.1 Coastal Beaches regarding beach vehicle use on coastal beaches shall apply to beach vehicle use on barrier islands and spits.
11. The CRMC does not require annual beach vehicle permits on the barrier spits of Seapowet Marsh and Point Fishing Area and Fogland Beach; both in Tiverton. Both spits are composed primarily of beach cobble and are excluded from an annual beach vehicle permit requirement.

D. Prohibitions

1. The use of plastic snow-fencing is prohibited on all barriers due to the hazards presented to fish, marine mammals, and other wildlife in the aftermath of a storm event.
2. Vehicle access across a back barrier flat to access the Salt Ponds is prohibited. Access to the ponds shall be on foot only.
3. Vehicles are prohibited in vegetated areas anywhere on the barriers.
4. Alterations to undeveloped barriers are prohibited except where the primary purpose of the project is protection, maintenance, restoration or improvement of the feature as a natural habitat for native plants and wildlife. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.
5. The construction of new infrastructure or utilities or expansion of existing infrastructure or utilities shall be prohibited on all barriers. Such infrastructure or utilities shall include but not be limited to public or private water, electric, gas and sewer lines. This prohibition does not apply to individual, on-site water supply systems and onsite wastewater treatment systems, or onsite bottled gas supply. Additionally, this prohibition does not apply to such ancillary activities as the installation of cable and/or telephone lines that will service an existing individual structure.
6. New development is prohibited on moderately developed barriers except where the primary purpose of the project is restoration, protection, or improvement of the feature as a natural habitat for plants and wildlife or as allowed under Section 210.3.C.3 herein. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.
7. The construction of new buildings is prohibited on developed barriers on which only roads, utility lines, and other forms of public infrastructure were present as of 1985.
8. All residential construction shall be setback a minimum of 50 feet. Residential construction is prohibited in the setback zone. A special exception shall be required for relief from the 50 foot setback requirement on barriers unless the activity proposed is a beach facility or walkover structure in which case a variance from the setback provisions shall be required. A variance shall be required for relief from the setback requirement on barriers for the area that lies between the 50 foot minimum setback and any greater setback based on the annual erosion rate. No new Individual Sewage Disposal Systems shall be constructed within the 50 foot setback area (see Section 300.6.A.2 for definition of new ISDS). Walkover structures may be permitted over the dunes in order to gain access to the beach.
9. The prohibition for new infrastructure or expansion of existing infrastructure on all barriers does not apply to infrastructure which is intended to service the needs of the state such as transportation related projects, including stormwater drainage improvement projects, or transmission corridors or other infrastructure intended to meet a demonstrated state need that provides public benefit.

Table 4. Undeveloped, Moderately Developed, and Developed Barriers

Undeveloped

Sandy Point Island, Westerly¹
Napatree Beach, Westerly¹ (west of Watch Hill Beach Club)
Maschaug Beach, Westerly¹
Quonochontaug Beach, Westerly/Charlestown¹ (west of Breachway)¹
East Pond Beach, Charlestown
East Beach (Ninigret conservation area to Charlestown Breachway)¹
Green Hill Beach, South Kingstown¹ (central portion)
Moonstone Beach, South Kingstown
Browning Beach, South Kingstown¹
Long Pond Beach, Little Compton¹
Round Pond Beach, Little Compton¹
Briggs Beach, Little Compton¹
Ship Pond Cove, Little Compton
Round Meadow Pond, Little Compton
Quicksand Pond Beach, Little Compton¹
High Hill Marsh Barrier, Little Compton¹ (eastern portion)
Sandy Point/West Beach, New Shoreham¹
Casey Point, North Kingstown¹
Greene Point, North Kingstown¹
Bissel Cove Barrier, North Kingstown
Tibbit's Creek, North Kingstown
Baker's Creek, Warwick
Buttonwood Cove, Warwick
Gaspee Point, Warwick
Conimicut Point, Warwick
Nayatt Point Beach, Barrington
Mussachuk Creek, Barrington
Rumstick Point, Barrington
Hog Island, Portsmouth¹ (2 separate areas)
Musselbed shoals, Portsmouth
Nag Pond/Jenny Pond, Portsmouth¹
Gull Point, Portsmouth
Sheep Pen Cove, Portsmouth
McCurry Point, Portsmouth
Fogland Point, Tiverton¹
Sapowet Point, Tiverton
Fox Hill Pond, Jamestown

Moderately Developed

Napatree Beach, Westerly (easterly portion)
Michel Pond Beach, Charlestown
Garden Pond Beach, Charlestown
Charlestown Beach, Charlestown (east of breachway to developed portion)
Narragansett Beach, Narragansett
Bonnet Shores Beach, Narragansett
Mackerel Cove Beach, Jamestown
Hazards Beach, Newport
Bailey's Beach, Newport
First (Easton's) Beach, Newport (western portion)
Crescent Beach, New Shoreham¹
Second Beach, Middletown
Third Beach, Middletown
Tunipus Pond Beach, Little Compton
Watch House Pond Beach, Little Compton¹
Sakonnet Harbor Beach, Little Compton¹ (eastern portion)

Table 4. (Continued)

Developed

Atlantic Beach, Westerly
Quonochontaug Beach, Charlestown (east of breachway)
East Beach, Charlestown (west of Ninigret conservation area)
Charlestown Beach, Charlestown
Green Hill Beach, South Kingstown (westerly and easterly portions only)
East Matunuck/Jerusalem Beach, South Kingstown and Narragansett
Roger Wheeler Beach (Sand Hill Cove), Narragansett
Bonnet Shores Beach, Narragansett (easterly portion)
First (Easton's) Beach, Middletown (easterly portion)
Crescent Beach, New Shoreham (southerly portion)
Coast Guard Beach, New Shoreham
High Hill Marsh Barrier, Tiverton (western portion)

¹ Denotes those barriers or portions thereof where the Coastal Barrier Resources Act of 1982 (CoBRA) prohibits federal subsidies for most new development and federal flood insurance for all new development. For the most up-to-date maps showing CoBRA designations, contact the Division of Planning, Department of Administration.

* **Note:** This list denotes most of the major barriers in Rhode Island. However, there may be some small barrier systems not contained on this list, but are subject to the policies characterized by the barrier's level of development.

Section 210.3 Coastal Wetlands

A. Definitions

1. Coastal wetlands include salt marshes and freshwater or brackish wetlands contiguous to salt marshes or geographical features. Areas of open water within coastal wetlands are considered a part of the wetland. In addition, coastal wetlands also include freshwater and/or brackish wetlands that are directly associated with non-tidal coastal ponds and freshwater or brackish wetlands that occur on a barrier beach or are separated from tidal waters by a barrier beach.
2. Salt marshes are areas regularly inundated by salt water through either natural or artificial water courses and where one or more of the following species predominate: smooth cordgrass (*Spartina alterniflora*), salt meadow grass (*Spartina patens*), spike grass (*Distichlis spicata*), black rush (*Juncus gerardi*), saltworts (*Salicornia* spp.), sea lavender (*Limonium carolinianum*), saltmarsh bulrush (*Scirpus* spp.), high tide bush (*Iva frutescens*).
3. Contiguous freshwater wetlands are those wetlands which border directly on salt marshes or brackish wetlands or geographical features and which, except for size limitations, meet the definition of bog, marsh, swamp, or pond under the Rhode Island Freshwater Wetlands Act (R.I.G.L. § 2-1-18 *et seq.*). All contiguous freshwater wetlands are protected under this Program, regardless of their size.
4. Contiguous brackish wetlands are those wetlands which border directly on salt marshes and where one or more of the following species predominate: tall reed (*Phragmites communis*), tall cordgrass (*Spartina pectinata*), broadleaf cattail (*Typha latifolia*), narrowleaf cattail (*Typha angustifolia*), spike rush (*Eleocharis rostellata*), chairmaker's rush (*Scirpus americana*), creeping bentgrass (*Agrostis palustris*) sweet grass (*Hierochloa odorata*), wild rye (*Elymus virginicus*).
5. High salt marsh is defined as that portion of the salt marsh that typically is flooded by spring, moon, or other flooding tides but otherwise is not flooded on a daily basis. The vegetative composition of high salt marsh typically consists of one or more of the following: salt meadow grass (*Spartina patens*); spike grass (*Distichlis spicata*); black rush (*Juncus gerardi*); tall reed (*Phragmites communis*); Sea Lavender (*Limonium carolinianum*); tall cordgrass (*Spartina pectinata*); saltmarsh bulrushes (*Scirpus* spp.); and high tide bush (*Iva frutescens*).
6. Low salt marsh is defined as that portion of the salt marsh that is flooded daily. The vegetative composition of the low salt marsh typically consists predominantly of smooth cordgrass (*Spartina alterniflora*).
7. Alterations to coastal wetlands are defined in Section 300.12.
8. Sea Level Affecting Marshes Model (SLAMM) is a model that simulates the dominant processes involved in wetland conversion and shoreline modifications during long-term sea level rise. The model projects the likely wetland conditions for selected sea level rise scenarios and the extent of landward wetland migration.

B. Findings

1. Coastal wetlands are important for a variety of reasons. They provide food and shelter for large populations of juvenile fish and are nurseries for several species of fish. The mud flats and creeks associated with many coastal wetlands are rich in shellfish, particularly soft-shelled clams. Coastal wetlands also provide important habitat for shore birds and waterfowl, and many are among the most scenic features of the Rhode Island shore. Coastal wetlands are effective in slowing erosion along protected shores.
2. Much of the original acreage of coastal wetlands in Rhode Island has been destroyed, and the pressures

to fill coastal wetlands continue. Downtown Providence, much of Quonset, and many other low-lying coastal communities are built on what was once coastal wetland. We do not know how much coastal wetland has been destroyed by development, but some 10 percent of our coastal wetlands of 40 acres or more is reported to have been filled between 1955 and 1964. Since coastal wetlands are found in sheltered waters, they frequently coincide with attractive sites for marinas and waterfront homes. The pressures to fill or otherwise alter coastal wetlands therefore remain. According to a 1975 survey, there are some 3,700 acres of salt marsh in the state, of which some 10 percent were fringe marshes less than five yards wide. Approximately 90 percent of the state's salt marshes abut Type 1 and 2 waters.

3. Many of Rhode Island's wetlands are small and, when viewed in isolation, may appear to be of insignificant value. However, these wetlands serve important ecological functions. The Council has sponsored research to investigate the feasibility of rating the relative value of individual coastal wetlands and two years of research revealed that it is not possible to rate coastal wetlands if all ecological considerations are given equal weight. The study also showed that there is little if any correlation between the perceived scenic value of a coastal wetland and its ecological characteristics.

4. Land uses and activities abutting coastal wetlands may have a strong impact upon the wetland itself and wildlife that use the wetland. Nearby drainage patterns which affect sedimentation processes and the salinity of waters may easily be altered, with detrimental effects. The construction of new shoreline protection structures and the bulkheading and filling along the inland perimeter of a marsh prevents inland migration of wetland vegetation as sea level rises, and will very likely result in the eventual permanent loss of coastal wetlands in these circumstances.

5. SLAMM has been used world wide to model the response of coastal wetlands to sea level rise and refined since first developed in 1986. A new CRMC led study (2014) using SLAMM to assess all 21 Rhode Island coastal communities found that approximately 50% of the State's current 4000 acres of saltmarsh would be inundated and lost under a 3-foot sea level rise and about 75% would be lost under 5-feet of sea level rise. Even considering potential marsh migration and transformation of abutting inland wetlands, there will be an overall net loss of saltmarsh as a result of sea level rise inundation throughout the State.

6. To ensure the long-term viability and ecological functions of salt marshes and other coastal wetlands, it is important to provide unobstructed pathways for these coastal wetlands to migrate landward as sea levels rise. Coastal Buffer Zones (Section 150) abutting coastal wetlands provide protected vegetated upland areas where coastal wetlands may migrate landward over time as sea levels rise.

7. In light of continuing pressures to alter coastal wetlands, and in accordance with the Council's policy of "no net loss", avoidance and minimization of impacts and mitigation for unavoidable losses are necessary tools for retaining and restoring Rhode Island's coastal wetlands.

C. Policies

1. The Council's goal is to preserve and, where possible, restore all coastal wetlands.

2. To offset past losses in coastal wetlands and unavoidable alterations to surviving coastal wetlands: (a) disturbed wetlands should be restored as directed by the Council or enhanced when possible; and (b) in areas selected on the basis of competent ecological study, the Council will encourage the building of new wetlands.

3. The Council's policy is that all alterations to salt marshes and contiguous freshwater or brackish wetlands abutting Type 1 waters are prohibited except for minimal alterations required by the repair of an approved structural shoreline protection facility (see Section 300.7), or when associated with a Council-approved restoration activity. In Type 1 waters, structural shoreline protection may be permitted only when used for Council-approved coastal habitat restoration projects.

4. It is the Council's policy that alterations to salt marshes and contiguous freshwater or brackish wetlands abutting Type 2 waters are prohibited except for minor disturbances associated with (a) residential docks

and wetland walkover structures approved pursuant to the standards set forth in Sections 300.4 and 300.17, respectively; (b) approved repair of structural shoreline protection facilities pursuant to Section 300.14; or, (c) Council-approved restoration activities.

5. Coastal wetlands designated for preservation adjacent to Type 3, 4, 5, and 6 waters are identified on maps available for inspection at the Council's offices and at the town halls of coastal cities and towns. In these designated wetlands only the following alterations may be permitted: minor disturbances associated with (a) residential docks and wetland walkover structures approved pursuant to the standards set forth in Sections 300.4 and 300.17, respectively; (b) approved repair of structural shoreline protection facilities pursuant to Section 300.14; (c) Council-approved restoration activities; or (d) Council-approved limited view restoration projects for existing hospitality industry businesses. Approval of limited view restoration projects requires a public access plan consistent with Section 335 subject to CRMC approval and requires that wetlands and other shoreline natural resource areas be placed in a conservation easement at a ratio of 5:1 (e.g., 5 times the area to be restored for a view must be preserved). The area to be restored for a view shall also be included in the conservation easement along with a long-term management plan for the view restoration area. All view restoration projects must demonstrate through aerial photographic evidence that a view which supported an existing hospitality industry business has been lost over time by the growth of forested wetland vegetation. Limited view restoration projects are prohibited bordering Type 1 and 2 waters and for all existing and proposed residential projects bordering all water types. Dredging and filling in these designated coastal wetlands are prohibited. The maps of designated coastal wetlands serve to identify individual wetlands; in all cases precise boundaries shall be determined through a field inspection when proposals that could impact these features are being considered. In support of this goal, the Council supports a policy of "no net loss" of coastal wetland acreage and functions as a result of coastal development.

6. Salt marshes adjacent to Type 3, 4, 5, and 6 waters that are not designated for preservation may be altered if: (a) the alteration is made to accommodate a designated priority use for that water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and (c) only the minimum alteration necessary to support the priority use is made.

7. Any alteration of coastal wetlands shall be consistent with Section 300.12.

8. It is the Council's goal to provide for maximum Coastal Buffer Zone widths for projects abutting coastal wetlands that are adjacent to Type 1 and 2 waters and for coastal wetlands designated for preservation adjacent to Type 3, 4, 5, and 6 waters. In those cases where the Council may grant a variance on small lots the minimum Coastal Buffer Zone width should be no less than 25 feet.

9. It is the Council's goal to provide maximum Coastal Buffer Zone widths for projects abutting coastal wetlands that are likely, based on site conditions and best available information, to migrate landward with sea level rise. These coastal wetlands do not abut seawalls, bulkheads or other structural shoreline protection facilities or elevated landforms such as bluffs, cliffs, or rocky shorelines, among others. These unobstructed coastal wetlands will migrate landward as sea level rises and Coastal Buffer Zones provide protected upland areas that may transition to coastal wetlands in the future.

10. The Council adopts the Sea Level Affecting Marshes Model (SLAMM) maps for all 21 Rhode Island coastal communities for coastal wetland restoration and adaptation planning purposes. The use of the SLAMM maps is intended to inform the public, state and local authorities of the likely condition of coastal wetlands and their landward extent under future sea level rise scenarios and to assist in adaptive ecosystem management and planning. The Council's SLAMM maps are hereby incorporated by reference and are available on the CRMC web site at: www.crmc.ri.gov.

D. Prohibitions

1. Alterations to salt marshes and contiguous freshwater or brackish wetlands abutting Type 1 waters are prohibited except for minimal alterations required by the repair of an approved structural shoreline

protection facility, or when associated with a Council-approved restoration activity. In Type 1 waters, structural shoreline protection may be permitted only when used for Council-approved coastal habitat restoration projects.

2. Alterations to salt marshes and contiguous freshwater or brackish wetlands abutting Type 2 waters are prohibited except as may be permitted in C.4 above.

3. Alterations to coastal wetlands designated for preservation adjacent to Type 3, 4, 5, and 6 are prohibited except for the activities listed in C.5 above. Dredging and filling in these designated coastal wetlands are prohibited.

4. Limited view restoration projects are prohibited bordering Type 1 and 2 waters and for all existing and proposed residential projects bordering all water types

5. Any limited view restoration project which does not strictly adhere to the Council's policies and standards as stated in Sections C and E herein are prohibited. Should the hospitality use be discontinued the subject property will no longer qualify for this provision and the limited view restoration Assent will become null and void.

E. Standards

1. Limited View Restoration:

- a. A public access plan shall be provided consistent with CRMP Section 335.
- b. Wetlands and other shoreline natural resources areas shall be placed in a conservation easement at a ratio of 5:1 (e.g., 5 times the area to be restored for a view must be preserved within the conservation easement). The area to be preserved for a view shall also be included in the conservation easement along with a long-term management plan for the view restoration area. The management plan shall be designed to manage the view restoration area as a shrub swamp.
- c. All view restoration projects must demonstrate through aerial photographic evidence that a view which supported an existing hospitality industry business has been lost over time by the growth of forested wetland vegetation, as of the effective date of this rule.

Section 210.4. Coastal Headlands, Bluffs, and Cliffs

A. Definition

1. Coastal cliffs and bluffs are elevated land forms on headlands directly abutting coastal waters, a beach, coastal wetland, and rocky shore.

B. Findings

1. Coastal cliffs and bluffs include a wide variety of headland land forms ranging from low bluffs with scarps cut in easily erodible glacial river or lake sediment, or in glacial till, to the dramatic bedrock cliffs of Newport and Narragansett. They are among our most scenic coastal features and are the sites for popular scenic overlooks. More than 300,000 visit Newport's Cliff Walk each year.
2. Exposed bluffs of unconsolidated material, such as those along the Matunuck headland in South Kingstown, have been known to recede by as much as 30 feet in a single severe hurricane. Portions of the Mohegan Bluffs on Block Island have eroded similar distances by undercutting of the toe resulting in bluff collapse in less severe storms. Human activities can greatly increase the susceptibility of headland bluffs to erosion. Structures close to the face of a bluff can make the feature unstable, and concentrated runoff and devegetation can cause a marked acceleration of erosion. Factors that affect the ability of a cliff or bluff to withstand erosion include its composition (rock or soil type), slope, stratigraphy, height, exposure, vegetative cover, and the amount of human disturbance to which it is subjected. Since headland bluffs are composed of unconsolidated glacial sediment, they are more susceptible to erosion than headland cliffs composed of bedrock.
3. Eroding bluffs can be important sources of sediment to nearby beaches. The bluffs of Watch Hill headland in Westerly, for example, were probably an important source of sand to the South Shore barrier and headland beaches. Extensive reveting of this headland certainly had a detrimental effect on these apparently distant and unconnected beaches. Due largely to their inaccessibility to man and other predators, some cliffs and bluffs provide important nesting sites for several species of birds.

C. Policies

1. The Council's goals are to: (a) protect coastal cliffs and bluffs from activities and alterations that may damage the value of these features as sources of sediment to beaches and as a buffer against storm waves and flooding; (b) prevent any construction in contiguous areas that may weaken the feature and has the potential of creating a hazard; and (c) preserve the scenic and ecological values of these features.
2. Due to their well-recognized scenic value and their use as tourist attractions and low-intensity recreation areas, the Council designates the following coastal cliffs and bluffs as Coastal Natural Areas: Bonnet Point, Hazard Rocks, Fort Wetherill, Ocean Drive, the Brenton Cove Cliffs, Cliff Walk, Purgatory Chasm, Sakonnet Point, and Mohegan Bluffs. A Council priority when considering proposed alterations on or adjacent to these features is the preservation and, where possible, the restoration of their scenic qualities.
3. On shorelines adjacent to Type 1 waters, the Council shall prohibit construction on or alteration of coastal cliffs and bluffs and contiguous areas where such construction or alteration has a reasonable probability of causing or accelerating erosion or degrading a generally recognized scenic vista. The Council shall require suitable unaltered buffer zones on cliffs and bluffs where erosion or substrate stability can be affected by facility construction or use.

In determining whether a reasonable probability exists that increased erosion or loss of scenic values will result from the proposed construction or alteration, the Council shall consider the following:

- (a) the exposure of the feature to the erosional forces of tidal currents, storm waves and storm-surge flooding, wind and surface runoff, and other such natural processes;
 - (b) the composition of the feature involved as well as its slope, stratigraphy, height, exposure, and vegetative cover;
 - (c) existing types and levels of use and alteration;
 - (d) competent geological evidence to evaluate whether natural erosion of the feature in question is a significant source of sediments to nearby headland and barrier beaches and whether the proposed construction of alteration will substantially reduce that source of sediment; and
 - (e) inclusion of the feature on an accepted inventory of significant scenic or natural areas or evidence of public use and enjoyment as a scenic or natural area.
4. The Council shall encourage the use of non-structural methods to diminish frontal erosion associated with coastal cliffs and bluffs adjacent to Type 1 and Type 2 waters.
5. Construction or alterations to coastal cliff and bluffs contiguous to Type 2, 3, 4, 5 and 6 waters may be permitted if: (a) the construction is undertaken to accommodate a designated priority use for the abutting water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and (c) only the minimum alteration necessary to support the designated priority use is made. In considering applications for permits for erosion-control measures, the Council shall weigh the impact of the proposed structure on the supply of sediments to nearby beaches. Where the Council finds that a substantial reduction or elimination of sediment is likely to result, and that natural erosional processes affecting the nearby beach will thereby be accelerated, it shall deny an application for Assent.

Section 210.5 Rocky Shores

A. Definition

1. Rocky shores include naturally occurring shorelines composed of bedrock ledge or boulder-strewn areas, extending from below mean low water to above the mean high water mark. These areas frequently contain tide pools.

B. Findings

1. Rocky shores play an important role in storm damage prevention and provide habitat to specially adapted assemblages of organisms. Gently sloping terraces of bedrock and boulders dissipate wave energy and are effective buffers that protect the mainland from storm damage. Rocky shores harbor a diversity of specially adapted plants and animals that can withstand both wave action and occasional desiccation. Tide pools are particularly beautiful features that should be protected.
2. Many rocky shores, especially in the lower Bay, are well recognized for their scenic value. Beavertail Point in Jamestown and sections of Ocean drive in Newport are notable examples. Rocky shores are often important tourist attractions, and are used for surf casting and skin diving by increasing numbers of people.

C. Policies

1. The Council's goal is to preserve and protect these features for their role in erosion prevention, for the unique assemblages of organisms that they may support, and for their recreation and scenic value.
2. The alteration of rocky shores abutting Type 1 water areas, excepting approved projects for shoreline protection, is prohibited.
3. On shorelines adjacent to Type 1 and 2 waters, the Council shall prohibit construction on or alteration of rocky shores and contiguous areas where such construction or alteration has a reasonable probability of causing or accelerating erosion or degrading a generally recognized scenic vista.

In determining whether a reasonable probability exists that increased erosion or loss of scenic value will result from the proposed construction or alteration, the Council shall consider the following: (a) the exposure of the feature to the erosional forces of tidal currents, storm waves and flooding, wind and surface runoff, and other such natural processes; (b) the composition of the feature involved and any significant plant or animal communities present; (c) existing types and levels of use and alteration; and (d) inclusion of the feature on an accepted inventory of significant scenic or natural areas or evidence of general public use and enjoyment as a scenic or natural area.

4. The construction of alterations to rocky shores adjacent to Type 3, 4, 5, and 6 waters may be permitted if: (a) the construction is undertaken to accommodate a designated priority use for the abutting water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and (c) only the minimum alteration necessary to support the designated priority use is made.

Section 210.6 Manmade Shorelines

A. Definition

1. Manmade shorelines are those characterized by concentrations of shoreline protection structures and other alterations, to the extent that natural shoreline features are no longer dominant. They most commonly abut Type 3, 5, and 6 waters. The presence of isolated seawalls, bulkheads, and similar structures does not constitute a manmade shoreline, as the term is used in this Program.

B. Findings

1. A 1978 survey of the Narragansett Bay shoreline revealed that along 25 percent of the shore natural features have been sheathed by manmade structures. Many of these have been built since the 1954 hurricane as attempts at "erosion prevention," undertaken at great cost by private property owners. Many will not survive a major hurricane that strikes the coast from the south. Many structures are overbuilt for the control of minor erosion between major storms.

2. Manmade shorelines usually have a major impact on the appearance of the shore, interfere with public access to and along the coast, and may alter erosion-accretion processes on neighboring beaches.

C. Policies

1. The Council's goals are: (a) to encourage the maintenance of structures that effectively mitigate erosion and/or sustain landforms adjacent to the water; and (b) prevent the accumulation of debris along the shore where such structures are ineffective or no longer in active use.

2. The Council encourages proper maintenance of existing shoreline protection structures (see Section 300.7).

3. The Council shall endeavor to determine the ownership of abandoned and deteriorating shoreline protection structures and shall encourage the owners of such structures to restore or remove them. The Council may order restoration or removal where it finds that the structure poses a hazard to navigation, interferes with the public's right of access to and along the shore, causes flooding or wave damage to abutting properties, or degrades the scenic qualities of the area.

Section 210.7

Dunes

A. Definitions

1. Dunes are elevated accumulations of sand formed by wind action. Dunes which are undisturbed appear as hills, mounds, or ridges of sand and are typically vegetated with beach grass and shrubs. The more or less continuous ridge of dunes parallel to, and just inland of, the beach is termed the 'foredune zone'.
2. For management purposes the seaward limit of the foredune zone is defined as: (1) the furthest seaward point where a noticeable sustained increase in topographic slope begins, or (2) the furthest seaward extent of rooted vegetation in the immediate area, or (3) fifteen (15) feet seaward of the dune crest, whichever is further seaward. The inland edge of the foredune zone is defined as twenty-five feet (25) landward of the dune crest. It is from the inland edge of the foredune zone that all setbacks and coastal buffer zones are applied.

B. Findings

1. The foredune zone, like beaches, is a dynamic feature. While beaches are shaped by the forces of waves, the foredune is created and shaped primarily by the wind. The foredune zone dissipates energy from waves and storm-surge overwash. This results in a decreased wave run-up and lowered levels of overwash water. Thus the foredune zone serves as buffer to help minimize property loss. As reservoirs of sand, the foredune zone provides some sediment to severely eroding beaches. The height and stability of foredunes is enhanced by the growth of beach grass which traps and anchors windblown sand. Although resistant to salt air and desiccation, beach grass is easily killed by human foot traffic. The shape or form of the foredune zone is of paramount importance. The seaward-facing slope of the foredune (termed the dune ramp) naturally forms at the same gradient as the seaward slope of the berm (usually 5-10 degrees). This low-gradient surface serves to dissipate and absorb wave energy. Higher-gradient slopes on human-altered foredunes often do not absorb the wave energy; the non-absorbed waves erode the foredune and are reflected seaward, transporting sand offshore.
2. Human-altered foredunes constructed of sand-sized material able to be moved by the wind will move and grow similar to natural foredunes.
3. Human-altered forms constructed in the foredune area of gravel-sized material not moveable by the wind are not dunes, but are defined as dikes. Dikes are often placed along the shoreline by property owners in the hope that they will function as foredunes. However, dikes should not be confused with a true foredune because their response to geologic processes is quite different.
4. In order to protect the ecological and geological integrity of the foredune zone and enhance its ability to serve as a buffer during moderate and severe storm events all residential construction should be setback not less than 30 times the annual erosion rate and all commercial construction should be set back not less than 60 times the annual erosion rate as previously established in Section 140 of this program. Larger setbacks may be required based on an assessment of the site conditions and other concerns relative to the proposed project. However, in no case should the dune setback be less than 50 feet. Setbacks help protect property from damage and destruction during severe storm events. All dune setbacks should be measured from the inland edge of the dune or dike. Access ways may be allowed over the dunes in order to facilitate pedestrian access to the beach.
5. Individual Sewage Disposal Systems have the potential to become buoyant or be damaged during a severe storm event causing raw sewage to spill onto the beach. Therefore, no new Individual Sewage Disposal Systems should be constructed within the setback area. Repairs should, whenever possible, be located outside of the setback area.

C. Policies

1. The Council's goals are to: (a) protect the foredune zone from activities that have a potential to increase wind or wave erosion; (b) to prevent construction in high hazard areas and protect the public from dangerous storm forces; (c) to enhance the ability of dunes to serve as a natural storm buffer; and, (d) to protect the scenic and ecologic value of the foredune zone and dunes.
2. All residential construction shall be setback not less than 30 times the annual erosion rate and commercial construction shall be setback not less than 60 times the annual erosion rate. In no case shall the dune setbacks be less than 50 feet. All dune setbacks shall be measured from the landward edge of the foredune zone defined to be 25 feet landward of the dune crest. A special exception shall be required for relief from the 50 foot setback requirements from dunes and beaches on barriers unless the activity proposed is a beach facility or walkover structure in which case a variance from the dune setback provisions shall be required. A variance shall be required for relief from the setback requirements from dunes and beaches on barriers for the area that lies between the 50 foot minimum setback and any greater setback based on the annual erosion rate. No new Individual Sewage Disposal Systems shall be constructed within the 50 foot setback area from the dune or beaches or seaward of construction lines (see Section 300.6.A.2 for definition of new ISDS). Walkover structures may be permitted over the dunes in order to gain access to the beach.
3. Alteration of the foredune zone adjacent to Type 1 and 2 waters is prohibited except where the primary purpose of the project is non-structural protection, restoration, nourishment, or improvement of the feature as a natural habitat for native plants and wildlife. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature. The Council may also permit the establishment of accessways (e.g., dune walkover structures) on foredunes provided that all requirements of this section are met.
4. Alteration of the foredune adjacent to Type 3, 4, 5, and 6 waters may be permitted if: (a) the alteration is undertaken to accommodate a designated priority use for the abutting water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; (c) only the minimum alteration necessary to support the designated priority use is made; (d) there is no change in the usage of the property; (e) there is no change in the footprint of existing structures; and, (f) the construction will meet all current and applicable policies, standards, and requirements of the RICRMP.
5. The construction of dune walkover structures may be permitted in order to limit pedestrian traffic and disturbance of the foredune zone. The width of dune walkover structures shall be limited to four (4) feet. In some instances, walkover structures may include small decks and viewing platforms provided that the square footage of the viewing platforms will be limited to 100 square feet.

D. Prohibitions

1. Vehicles are prohibited on dunes and within 75 feet of the dune crest except on trails marked expressly for vehicular use. Prohibited areas may or may not be vegetated.
2. Alteration of the foredune zone adjacent to Type 1 and 2 waters is prohibited except where the primary purpose of the project is non-structural protection, restoration, nourishment, or improvement of the feature as a natural habitat for native plants and wildlife. In no case shall structural shoreline protection facilities be used to preserve or enhance these areas as a natural habitat or to protect the shoreline feature.
3. No new Individual Sewage Disposal Systems shall be constructed within the 50 foot setback area from the dune or beaches or seaward of construction lines (see Section 300.6.A.2 for definition of new ISDS).

Section 220. **Areas of Historic and Archaeological Significance**

A. Definition

1. Historic and archaeological resources include districts, sites, buildings, structures, objects, and landscapes included in or eligible for inclusion in the state and national registers of historic places, or areas designated as historically or archaeologically sensitive according to the predictive model developed by the Rhode Island Historical Preservation Commission.

B. Findings

1. The Rhode Island coastal region has a rich and long history, and possesses many well-preserved examples of prehistoric and historic sites. The coastal zone contains an abundant and diverse number of Native American Indian settlements, some dating back at least 3,000 years. The bulk of the information still to be obtained concerning Rhode Island's prehistory is associated with sites in the coastal zone. The Historical Preservation Commission has developed a predictive model that identifies those coastal sites where significant archaeological finds are most likely to be present.
2. Beginning with the first Europeans under Giovanni da Verrazano, who visited the site of Newport in the early 1500s, the coastal zone has been the location of important historic and architectural development. The Rhode Island coastal region is nationally recognized for its outstanding historic architecture, and the majority of all the sites and districts currently on the state and national registers of historic places are located in the coastal zone. Significant historic and archaeological sites are extremely valuable cultural, educational, economic, and recreational resources to the state's citizens and visitors alike, and they are part of the essential character of the coastal zone. Historic properties are a key element in defining the state's quality of life, and hence its attractiveness to a growing tourist industry and as a location for new investment. Historic sites and districts provide access to and enjoyment of scenic coastal areas, both in terms of the sites themselves and in the traditional land-use patterns which define many scenic qualities in the coastal zone.
3. Historic and archaeological resources in the coastal zone are under great pressure from a variety of forces which threaten their outright destruction or the degradation of their historic qualities and setting. Unsympathetic new development, erosion, artifact collectors, and rising sea levels are major factors in reducing the number and quality of these irreplaceable resources.

C. Policies

1. The Council's goal is to, where possible, preserve and protect significant historic and archaeological properties in the coastal zone.
2. Preservation of significant historic and archaeological properties is a high priority use of the coastal region. Activities which damage or destroy important properties shall be considered a low priority.
3. The Council shall require modification of, or shall prohibit proposed actions subject to, its jurisdiction where it finds a reasonable probability of adverse impacts on properties listed in the National Register of Historic Places. Adverse impacts are those which can reasonably be expected to diminish or destroy those qualities of the property which make it eligible for the National Register of Historic Places. The Council shall solicit the recommendations of the Historical Preservation Commission regarding impacts on such properties.
4. Prior to permitting actions subject to its jurisdiction on or adjacent to properties eligible for inclusion (but not actually listed in the National Register of Historic Places), and/or areas designated as historically or archaeologically sensitive by the Historical Preservation Commission as the result of their predictive model, the Council shall solicit the recommendations of the Commission regarding

possible adverse impacts on these properties. The Council may, based on the Commission's recommendations and other evidence before it, including other priority uses of this Program, require modification of or may prohibit the proposed action where such adverse impacts are likely.

5. Structural shoreline protection facilities may be permitted in Type 1 Waters provided that the structure is necessary to protect a structure which is currently listed in the National Register of Historic Places.

Part Three.

**Activities
under Council
Jurisdiction**

**Section 300.
In Tidal and Coastal Pond Waters, on Shoreline Features,
and Their Contiguous Areas**

**Section 300.1
Category B Requirements**

All persons applying for a Category B Assent are required to:

1. Demonstrate the need for the proposed activity or alteration;
2. Demonstrate that all applicable local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements have or will be met; local approvals are required for activities as specifically prescribed for nontidal portions of a project in Sections 300.2, 300.3, 300.6, 300.8, 300.9, 300.11, 300.13, 300.15 and 300.17; for projects on state land, the state building official, for the purposes of this section, is the building official;
3. Describe the boundaries of the coastal waters and land area that are anticipated to be affected;
4. Demonstrate that the alteration or activity will not result in significant impacts on erosion and/or deposition processes along the shore and in tidal waters;
5. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life;
6. Demonstrate that the alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of, tidal waters and/or the shore;
7. Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation;
8. Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;
9. Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance;
10. Demonstrate that the alteration or activity will not result in significant conflicts with water-dependent uses and activities such as recreational boating, fishing, swimming, navigation, and commerce, and;
11. Demonstrate that measures have been taken to minimize any adverse scenic impact (see Section 330).

Each topic shall be addressed in writing.

Additional requirements are listed for specific Category B activities and alterations in the sections that follow.

Section 300.2.

Filling, Removing, or Grading of Shoreline Features

A. Definitions

1. Filling is the deposition of materials of upland origin onto shoreline features or their contiguous areas (see Section 300.9 for inland disposal of dredged materials).
2. Removing is the process of taking away, including excavation, blasting, or mining, any portion of a shoreline or its contiguous area.
3. Grading is the process whereby fill or the soils of a shoreline or its contiguous area are redistributed or leveled.

Established agricultural practices in areas contiguous to shoreline features are excluded from this section.

4. Erosion and Sediment Control Plan: An erosion and sediment control plan is a description of the proposed best management practices, detailed site plans, and written narrative that, when implemented, provides protection and restoration of coastal resources by reducing erosion and controlling sediment onsite as well as minimizing other negative impacts associated with land development activities.

B. Policies

1. All filling, removing or grading activities shall be done in accordance with the policies and standards of this section and the standards and specifications set forth in the most recent edition of the *Rhode Island Soil Erosion and Sediment Control Handbook*.
2. All new activities subject to Section 300.3 (residential, commercial, and industrial structures), Section 300.13, Section 320, or those activities which disturb more than 5,000 square feet of land on a site shall prepare and implement an erosion and sediment control plan approved by the Council which references all necessary practices for erosion and sediment control. All erosion and sediment control plans shall be consistent with applicable policies and standards contained in the Rhode Island Coastal Resources Management Program and the standards and specifications set forth in the most recent edition of the *Rhode Island Soil Erosion and Sediment Control Handbook*. All erosion and sediment control plans shall be strictly adhered to.
3. The Council recognizes the most recent version of the *Rhode Island Soil Erosion and Sediment Control Handbook*, and its amendments, published jointly by the Rhode Island Department of Environmental Management and the United States Department of Agriculture (USDA), *Natural Resources Conservation Service (NRCS)*, as containing appropriate Best Management Practices (BMP) for use within the CRMC's jurisdiction. All erosion and sediment control plans shall be consistent with this manual. Applicants are also encouraged to consult the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual* during the preparation of their erosion and sediment control plan in order to ensure consistency with the Council's stormwater management requirements (Section 300.6).
4. Routine filling, removing, or grading of bulk materials (e.g. coal, salt, etc.) that occurs as part of the normal operations of an existing bulk transfer facility (e.g., the Port of Providence) which is adjacent to type 6 waters is excluded from the provisions of this section provided that all filling, removing or grading activities are done in accordance with applicable guidance manuals which specify the appropriate best management practices for Rhode Island. Any filling, removing or grading that will result in a modification of an existing bulk transfer facility's infrastructure shall be subject to the policies and standards in this section.
5. Filling, removing, or grading activities shall be reviewed at the Category B level when (a) the filling or removing involves more than 10,000 cubic yards of material, (b) the affected area is greater

than two acres, or (c) the affected area is a designated historic area or archaeologically sensitive site.

C. Prohibitions

1. Filling, removing, or grading is prohibited on beaches, dunes, undeveloped barrier beaches, coastal wetlands, cliffs and banks, and rocky shores adjacent to Type 1 and 2 waters unless the primary purpose of the alteration is to preserve or enhance the feature as a conservation area or natural buffer against storms.
2. Filling, removing, or grading on coastal wetlands is prohibited adjacent to Type 1 and 2 waters, and in coastal wetlands designated for preservation adjacent to Type 3, 4, 5 and 6 waters, unless a consequence of an approved mosquito-control ditching project (Section 300.12).
3. On-site beach materials (cobbles, sand, etc.) may not be used as construction material.
4. Mining is prohibited on coastal features.

D. Standards

1. The following standards apply in all cases where filling, removal, or grading is undertaken:
 - (a) Fill slopes shall have a maximum grade of 30 percent;
 - (b) All excess excavated materials, excess fill, excess construction materials, and debris shall be removed from the site and shall not be disposed in tidal waters or on a coastal feature;
 - (c) Disturbed uplands adjacent to a construction site shall be graded and re-vegetated or otherwise stabilized to prevent erosion during or immediately after construction. Nutrients shall be applied at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters;
 - (d) Removal or placement of sediments along jetties or groins may be permitted only as part of an approved dredging or beach nourishment project (see Section 300.9);
 - (e) All fill shall be clean and free of materials which may cause pollution of tidal waters;
 - (f) Cutting into rather than filling out over a coastal bank is the preferred method of changing upland slopes; and
 - (g) Limit the application, generation, and migration of toxic substances and ensure that toxic substances are properly stored and disposed of onsite in accordance with all applicable federal, state, and local requirements.
2. The following upland and shoreline earthwork standards shall be required in those cases where the Council determines that additional measures are warranted in order to protect the environment of the coastal region. Such requirements shall be listed on Assents as stipulations.
 - (a) For Earthwork on shoreline features:
 - (1) Prior to initiation of construction, the contractor may be required to meet on-site with the CRMC staff to discuss and clarify the conditions of the permit;
 - (2) A re-vegetation plan shall be submitted for review and approval when construction is undertaken on a barrier beach. This plan shall describe plant material, methods of planting, time of planting, soil amendments, and maintenance;
 - (3) Construction materials and excavated soils shall not be placed or stored on any shoreline feature excepting developed barrier beaches and manmade shorelines;

- (4) All disturbed soils shall be graded smooth to a maximum 3:1 slope and re-vegetated immediately after construction, or temporarily stabilized with mulch, jute matting, or similar means until seasonal conditions permit such re-vegetation;
 - (5) In sensitive areas, work shall be carried out from areas above slope from coastal features. Machinery and construction equipment shall normally not be allowed to operate on a coastal wetland. For unavoidable work on a coastal wetland, a protective cover shall be deployed to minimize disturbance;
 - (6) In instances where the CRMC permits temporary disturbance of a coastal feature, shoreline slope, buffer zone, or area of beach grass, the disturbed area shall be completely restored by the owner under the guidance of CRMC staff; and
 - (7) Concrete structures which will come in contact with salt water shall be constructed with concrete which utilizes a Type II or Type V air-entraining Portland cement or an equivalent that is resistant to sulfate attacks of seawater.
- (b) For upland earthwork, measures shall be taken to minimize erosion:
- (1) A line of staked hay bales or other erosion-preventing devices (including diversion ditches, check dams, holding ponds, filter barrier fabric, jute or straw mulch) shall be placed at the downslope perimeter of the proposed area of construction prior to any grading, filling, construction, or other earthwork. Hay bales shall be toed in to a depth of 3 to 4 inches, and maintained by replacing bales where necessary until permanent re-vegetation of the site is completed. No soils or other materials are authorized to pass beyond the bale line;
 - (2) All slopes shall be returned to the original grade unless otherwise specified;
 - (3) Where natural or manmade slopes are or have become susceptible to erosion, the slopes shall be graded to a suitable slope and re-vegetated with thick rooting brush vegetation. Mulch shall be applied as necessary to provide protection against erosion until the vegetation is established;
 - (4) Construction shall be timed to accommodate stream and/or runoff flow and not allow flows over exposed, un-stabilized soils, or into or through the excavation. Flows shall not be restricted in such a manner that flooding or inhibition or normal flushing occurs;
 - (5) Any pumping of groundwater which may be necessary for de-watering shall be discharged into sediment traps consisting of a minimum of staked hay bale rings enclosing crushed stone or trap rock of a size sufficient to disperse inflow velocity. Hay bales shall be recessed 4 to 6 inches into the soil and maintained; and
 - (6) There shall be no discharge of sediment-laden waters into storm drains. Storm drains shall be surrounded by staked hay bales to intercept sediment.
- (c) For any disturbance of steep slopes (over 15 percent):
- (1) Where such construction is allowed, the following shall be observed: (1) no fill shall be allowed on the slope; (2) excavation shall be kept to an absolute minimum; and (3) vegetative cover on the slope shall be permanently maintained to the maximum extent physically possible.
 - (2) Where the potential for damage to a slope exists from runoff, staked hay bales, berms, or similar diversions shall be placed at the top and toe of the slope. Collected water shall be suitably discharged through properly constructed drains or swales. Wherever possible, drainage swales shall be constructed along and adjacent to property lines so as to avoid drainage onto adjacent properties. Swales shall be capable of handling runoff from a 10-year-rainfall occurrence.

- (3) For excavations on slopes or directly adjacent to coastal features, the excavated materials shall be cast upslope of the trench or excavation so as to minimize downslope runoff of sediment.
- (4) Pedestrian access over steep shoreline slopes and banks shall be in the form of field stone or similar stabilized paths or elevated stairs. Access over bluffs shall be with elevated stairs only.

Section 300.3 Residential, Commercial, Industrial, and Recreational Structures

A. Definitions

1. Residential buildings include houses, and other structures as defined as a building in Section R-115 of the Council of American Building Officials (CABO) Building Code, and the pertinent sections thereto which are used primarily for human habitation which are built on a shoreline feature or its contiguous area.

2. Commercial and industrial structures and operations on a shoreline feature, its contiguous area, or within tidal waters include all buildings and alterations to such features related to the manufacturing and interchange of goods or commodities, or any other business activity.

3. Recreational structures include swim floats, beach pavilions that are constructed for recreational purposes on a shoreline feature, its contiguous area, or in tidal waters.

4. Associated residential structures including but not limited to decks, porches, walls, boardwalks, swimming pools, roads, driveways, and shall include other structures integral to or ancillary to a residential building including minor grading, filling or excavation typically 10 cubic yards or less.

5. Structural Lot Coverage is that part of a lot or parcel that is covered by roofed structures of at least 200 square feet in size. Structural Lot Coverage is calculated in square feet and is either equal to the total square footage occupied by one or more foundations, or, in the case of cantilevered structures, the total square footage occupied by the structure and calculated as if a foundation supported the cantilevered portions of the structure. Structural foundations shall be broadly interpreted to include sona-tubes, pilings, concrete blocks, columns, or other types of foundation material which provide structural support to a structure which is covered by a roof.

6. Structural Perimeter Limit (SPL): a defined perimeter based on in-water commercial and/or industrial structures and operations which defines and limits the area for said structures and operations to be located.

B. Policies

1. It shall be the policy of the Council to undertake all appropriate actions to prevent, minimize or mitigate the risks of storm damage to property and coastal resources, endangerment of lives and the public burden of post-storm disaster assistance consistent with policies of the State of Rhode Island as contained in the Hazard Mitigation Plan element of the State Guide Plan when considering applications for the construction of residential, commercial, industrial and recreational structures, including utilities such as gas, water and sewer lines, in high hazard areas.

2. It is the Council's policy to require a public access plan, in accordance with Section 335, as part of any application for a commercial or industrial development or redevelopment project in or impacting coastal resources.

In accordance with Section 120, a variance from this policy may be granted if an applicant can demonstrate that no significant public access impacts will occur as result of the proposed project.

3. All commercial and industrial structures and operations located within tidal waters shall obtain a structural perimeter limit (SPL). Owners/operators of these facilities may apply to the Council for definition and establishment of this structural perimeter at any time. However, the Council shall establish a structural perimeter limit (SPL) when an application subject to this section is under review.

C. Prerequisites

1. Applicants proposing new construction and/or alterations to existing structures shall obtain a letter from the local authorities certifying that proposed activities conform to the local zoning ordinance, or that if relief from an ordinance is required that it has been obtained and that the decision authorizing the appropriate relief is final.

This letter must be submitted to the CRMC with the application.

2. Applicants proposing new construction and/or alterations to existing structures shall demonstrate that all applicable requirements of the RISBC including those pertaining to construction within flood hazard zones will be met.

This demonstration shall be made by submitting to the CRMC at the time of application a building official's form properly completed and signed by the local building official.

3. Applicants proposing to build, repair or alter an individual sewage disposal system (ISDS) shall obtain a permit from the Department of Environmental Management and shall submit to the CRMC copies of the approved application and the approved plans. The plan submitted must bear a DEM/ISDS approval stamp.

4. Persons proposing activities that may impact the function of an existing ISDS and which by the rules and regulations of the Department of Environmental Management requires the issuance of a permit, shall obtain the necessary permits and submit copies of these permits to the CRMC at the time of application.

5. Applicants for industrial, commercial and recreational structures shall demonstrate that all state safety codes, fire codes, and environmental requirements have or will be met.

6. Applicants shall demonstrate that connections to public water supplies and sewer systems shall be authorized by the appropriate authorities when:

- a) such connections are proposed by the applicant;
- b) where on-site water withdrawal and/or sewage disposal will have a significant adverse environmental or public health impact.

7. Applicants for commercial, industrial, and recreational structures shall demonstrate that adequate transportation and utility services to support the proposed operations and related activities are available.

D. Prohibitions

1. Industrial operations and structures are prohibited in Type 1 and 2 waters or on shoreline features abutting these waters.

2. The mining and extraction of minerals, including sand and gravel, from tidal waters and salt ponds is prohibited. This prohibition does not apply to dredging for navigation purposes, channel maintenance, habitat restoration, or beach replenishment.

3. Solid waste disposal and minerals extraction is prohibited on shoreline features and their contiguous areas.

4. The use of fill for structural support of buildings in flood hazard V zones is prohibited.

5. (a) New decks and structures, and expanded structures associated with residential properties, or

non-water dependent commercial uses, are prohibited in or over tidal waters.

(b) Decks associated with commercial properties are prohibited in or over type 1 waters. Decks associated with commercial properties are prohibited in or over Type 2 waters unless such use is reserved in connection with a water dependent use. Decks associated with commercial properties are prohibited in or over Type 3, 4, 5, and 6 waters unless (i) the deck is to accommodate a designated priority use for that water area; (ii) the applicant has examined all reasonable alternatives and the council has determined that the selected alternative is the most reasonable; and (iii) the deck is the minimum necessary to support the priority use.

6. See Section 110 (specifically Table 1A) for a listing of additional prohibitions.

E. Standards

1. General:

(a) See standards given in "Filling, Removing, or Grading of Shoreline Features" (Section 300.2), as applicable.

(b) See standards given in "Sewage Treatment and Disposal" (Section 300.6), as applicable.

(c) Commercial and Industrial docks, wharves and piers shall be designed and certified by a registered professional engineer.

(d) All commercial and industrial structures and operations in tidal waters shall have a defined structural perimeter for in-water facilities, which shall describe and limit that area in which repair or alteration activities may take place. Structural perimeters shall be defined on the basis of in-water facilities in place as of September 30, 1971, or subsequently assented structures. All new or modified structural perimeter limit lines shall be a maximum of ten (10) feet outside of the structures. The structural perimeter limit (SPL) shall be designated on all plans with the corners designated by their State Plane Coordinates. However, in all cases the SPL shall be setback at least fifty (50) feet from approved mooring fields. In addition the SPL shall be setback at least three times the authorized project depth from federal navigation projects (e.g. navigation channels and anchorage areas).

(e) It is permissible to have vessels berthed at a facility outside of the structural perimeter limit if, in the opinion of the Executive Director, there are no conflicts with other users, impacts to resources, or conflicts with the DEM Shellfish Program. All vessels shall be berthed parallel to piers and docks if outside of the structural perimeter limit.

2. Residential, commercial, industrial, and recreational buildings:

(a) Excavation and grading shall be restricted to those activities and areas necessary for the construction of the building and/or appurtenant structures (see Section 300.2).

(b) Applicants shall be required to reduce the inflow of pollutants carried by surface runoff in accordance with the policies and standards contained in Section 300.6 and as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*.

F. Flood Zone Construction

In many instances lands under the jurisdiction of the CRMC are by virtue of their topographic position subject to flooding. The Federal Emergency Management Agency has evaluated the risk of flooding and has established 100 year return frequency elevations of the flood waters (i.e., the Base Flood Elevation, (BFE) for all of the State's coastal communities. The approximate limits of the flood zones and the associated Base Flood Elevations are shown on the FEMA Flood Insurance Rate Maps, which are commonly available at each communities building official's office.

In recognition that structures located within Flood Hazard Zones must be designed to meet more severe conditions than those not, the Rhode Island State Building Code, (RISBC) contains specific requirements for flood zone construction (Reference RISBC-8).

The CRMC requires all applicants proposing construction within flood hazard zones to demonstrate that all applicable portions of the RISBC and more specifically RISBC-8 are to be met.

This demonstration shall be made by submitting to the CRMC at the time of application a building official's form properly completed and signed by the local building official.

G. Guidelines for Construction in Flood Hazard Zones

In addition to the requirements of the RISBC, the CRMC suggests that applicants incorporate the following items into their proposed designs:

1. For construction in wave velocity (V) zones as defined by Federal Flood Insurance Rate Maps:
 - (a) If timber pilings are used, they should meet the American Society for Testing and Materials (ASTM) standards for Class B piles and shall have a minimum tip diameter of 8 inches. Wooden pilings should be treated with a wood preservative. Bracing between piles is recommended.
 - (b) Pilings in ocean fronting areas should penetrate no less than 10 feet below mean sea level.
 - (c) Floor joists should be secured with hurricane clips where each joist encounters a floor beam. These metal fasteners or straps should be nailed on the joist as well as on the beam.
 - (d) To secure the exterior wall to the floor joists, galvanized metal strap connections should be used connecting the exterior wall studs to the joists.
 - (e) Roof trusses or rafters should be connected to the exterior wall with galvanized metal straps.
2. For construction in coastal stillwater (A) Flood Zones.
 - (a) Items a, b, c, d, e as listed for V zone construction should, if applicable, be employed.
 - (b) Parallel concrete walls or pilings rather than fill should be used to elevate habitable residential structures when six (6) feet or more clearance exists between the existing grade and the flood plain elevation.

In areas subject to minimal wave action in a 100-year storm event, discontinuous reinforced-concrete foundation walls which allow sufficient free flow of flood waters may be substituted for parallel concrete walls or pilings.

Section 300.4

Recreational Boating Facilities

A. Definitions

Recreational boating facilities include marinas, launching ramps, residential and limited recreational boating facilities, recreational wharves, piers and slips, floats or floating docks, and recreational mooring areas.

1. Marina: any dock, pier, wharf, float, floating business, or combination of such facilities that accommodate five or more recreational boats.
2. Launching Ramp: a manmade or natural facility used for the launching and retrieval of boats.
3. Residential Boating Facility: a dock, pier, wharf, or float, or combination of such facilities, contiguous to a private residence, condominium, cooperative or other home owners association properties that may accommodate up to four (4) boats.
 - (a) fixed terminal section: the seaward-most section of a residential boating facility which is configured as a T-section or L-section that provides access between a fixed dock and a vessel.
4. Limited recreational boating facilities: a pier, dock ramp or float, or combination of such facilities constructed in accordance with the standards for residential boating facilities herein, which provide low intensity boating activities associated with land uses zoned by the local municipality as institutional or open space (or an appropriate sub-district of institutional or open space zoning) and may accommodate up to four (4) boats.
5. Recreational Mooring Area: any designated area managed by a commercial enterprise, a club, city, or town where five (5) or more recreational craft are kept at moorings.
6. Terminal Float: refers to the floating dock or docks that are typically at the seaward terminus of a residential boating facility to which the berthed vessels are typically affixed and from which the vessels are boarded or berthed. Terminal floats are typically accessed from a ramp leading from a fixed pier. Four foot wide floats that are used to provide perpendicular access to the berthing area in lieu of the utilization of a fixed pier are defined as access floats, not terminal floats. Additional floats, not at the seaward end and not used primarily for access, shall be considered a terminal float.
7. Limited Marina: Any facility marina intended for use by recreational vessels with a boat count between five (5) and twenty five (25).
8. Destination Harbor: A destination harbor is one in which the primary use is by people arriving by vessel. The following are considered destination harbors: Newport Harbor and Old / New Harbor in Block Island.
9. Alteration: an alteration of a marina is any activity that results in changes to the existing or previously approved recreational boating facility design. Such activities include but are not limited to the removal, addition, or relocation of piles, floating docks or fixed piers and changes to the Marina Perimeter Limit.
10. Significant Expansion: any expansion greater than 25 % of existing or previously authorized boat capacity, or an expansion of fifty (50) or more vessels.
11. Property Line Extension (PLE): projections of property lines used to demarcate the sideways bounds of a tidal water area adjacent to property on which a marina or residential dock is proposed to be sited. The PLE's are used in the application process as a tool to assess dock siting and are not to be construed as conveying any rights or privileges to an applicant or property nor as a determination of riparian rights.
12. Public Trust Resources (PTR): are defined as the tangible physical, biological matter substance or systems, habitat or ecosystem contained on, in or beneath the tidal waters of the state, and also include

intangible rights to use, access, or traverse tidal waters for traditional and evolving uses including but not limited to recreation, commerce, navigation and fishing.

13. Environmental Site Conditions: all elements, environmental, engineering and geologic that affect a particular location. These items shall primarily include, fetch, wave conditions, wind conditions, bathymetry, currents, soil bearing capacity, ice impacts, tide range, flood elevation, velocity zone, littoral conditions, erosion/accretion characteristics, presence of wetlands, sub-aquatic vegetation, marine resources and associated habitats. Other site specific conditions may be required for review.

14. Transient Berthing: Berthing for less than thirty days (30) by a vessel that is typically kept at another location. Transient vessels and slips for transient vessels shall be considered part of the overall boat count allowed. Touch and Go facilities shall limit berthing to a maximum of forty eight (48) hours.

15. Outhaul: Defined as a non-single-point anchoring device, for the purpose of securing a boat in tidal waters and retrieving it from shore.

16. Boat / Vessel Count: Any space where a vessel may be docked or stored by wet slip, float, mooring or other device. Dry Stack vessels will receive a separate boat count. Dinghies, canoes, kayaks and other small tenders (12' or less) to vessels shall not be included in the boat count.

17. Swim Float: Any float that is 150 square feet or less, bottom anchored and approved by the CRMC and local harbormaster on a seasonal basis (May 15 – October 15) that does not have vessels attached.

18. Marina Perimeter Limit (MPL): a defined perimeter based on in-water facilities which defines and limits the area for structures to be located.

19. Functional Residential Boating Facility: A facility shall be considered functional if it has been in continuous uninterrupted use.

20. Marine railways: sometimes referred to as slipways, marine railways are mechanical means for: the lifting of a vessel out of the water to an elevation above the highest tides; or, for the launching of a vessel into the water. It is a system of cradles or carriages that are lowered into or raised from the water along an inclined track on a system of rollers or wheels.

B. Policies

1. This section of the Rhode Island Coastal Resource Management Plan is intended to help applicants understand the process and requirements necessary to prepare and file a complete application as well as providing a guide for the review of applications.

2. R.I.G.L. § 46-23-6 (9) states “recreational boating facilities including marinas, launching ramps, and recreational mooring areas, as defined by and properly permitted by the Council, are deemed to be one of the uses consistent with the public trust.”

3. The Council recognizes that the United States Coast Guard has primary authority over navigational aids and marine boating safety, and that these responsibilities are complemented by the Department of Environmental Management, local harbormasters, and public boating service organizations such as the Coast Guard Auxiliary.

4. The Council requires municipalities preparing to implement harbor management plans and/or programs relating to activities in tidal waters to apply for a determination of consistency with the Coastal Resources Management Program to assure conformance between such plans and/or programs and the Coastal Resources Management Program, the Guidelines for the Development of Municipal Harbor Management Plans and the General Laws of the State of Rhode Island (see Section 300.15 – Municipal Harbor Regulations).

5. All persons proposing condominium, dockominium, or other forms of ownership or operation of recreational boating facilities involving multiple, cooperative, condominium or fee simple interests in

ownership or operation shall submit a prospectus of such proposals to the CRMC for review of consistency with the state of Rhode Island’s public trust responsibilities, R.I.G.L. Chapter 46-23, and the Rhode Island Coastal Resources Management Program.

6. Repair or reconstruction of all residential structures that are physically destroyed 50% or more by wind, storm surge, waves or other coastal processes shall require a new Council Assent. Such activities requiring a new Council Assent shall be reviewed according to the most current applicable programmatic requirements of the Coastal Resources Management Program, its Special Area Management Plans, and/or any other appropriate CRMC-approved management plan. All replacement structures shall be designed and constructed to meet current structural and environmental design conditions shown in Table 3 – Minimum Design Criteria. For marinas see Section 300.14 - Maintenance of Structures.

TABLE 1

Existing Residential and Limited Recreational Boating Facility
Modification Request for Permitted Structures

Dock Condition	Application Type
1) Functional Dock to be replaced in its entirety	Maintenance
2) Functional Dock to be replaced in its entirety in Type 1 Waters	Maintenance
a) Functional Dock destroyed (>50%) by storm or natural Hazard in Type 1 Waters	Cannot be Replaced or Special Exception
3) Existing Dock field assessed by CRMC Staff as >50% destroyed in Type 1 Waters	Cannot be Replaced or Special Exception
4) Functional Dock, destroyed (>50%) in a storm/natural hazard	New
5) Dock, not functional, field assessed as >50% destroyed	New
6) Functional Dock, to be replaced in its entirety	Refer to Section 300.14
a) dock, not in compliance at time of permit	Refer to Section 300.14
7) Adding to existing Dock	
a) Existing dock does not need to be brought into compliance, proposed addition must meet current regulations	Modification
b) Addition is over 50% of length or width of dock	New

In the Event of Catastrophic Storms, Section 180 Emergency Assents of the RICRMP may apply to the above table at the discretion of the Executive Director.

7. Outhauls are subject to the regulatory jurisdiction of the Council. The Council may authorize a municipality to administer an annual permit for such provided said municipality has a Council approved and active harbor management plan and ordinance which contains the following:

- a. municipal documentation that demonstrates that
 - i. except as provided below, an outhaul(s) is/are to be permitted to the contiguous waterfront property owner; and,
 - ii. up to two (2) outhauls may be allowed per waterfront property; and,
 - iii. outhauls are not permitted on properties which contain a recreational boating facility; and,
 - iv. procedures have been adopted to ensure that permits are issued only consistent with the RICRMP, including the provisions of 300.18; and,
 - v. their procedures acknowledge that the CRMC retains the authority to revoke any permits issued by the municipality if it finds that such permit conflicts with the RICRMP; and,
 - vi. from November 15 to April 15, when a boat is not being secured by the device on an annual basis, the outhaul cabling system shall be removed; and,

- vii. outhauls may be “grandfathered” in their current location upon annual harbormaster documentation that such outhauls have been in continuous use at such location since 2004, and, the contiguous property owner(s) agree in writing to such, however, such “grandfathering” is extinguished whenever a recreational boating facility is approved at the location.

B.1 Marina Policies

(a) The Council encourages marinas to utilize techniques that make the most efficient use of space and increased demands for moorage, dockage, and storage space by primarily utilizing dry stack storage in addition to innovative slip and mooring configurations, etc.

(b) All new and significantly expanded marinas shall first submit a Preliminary Determination (PD) application to the CRMC for a conceptual evaluation of the proposed project. The Preliminary Determination shall include an alternatives analysis to evaluate that the use of the Public Trust Resources proposed are the most efficient and protective of the environment. In assessing a proposed marina facility, the Council shall require a Preliminary Determination / Alternatives Analysis that details the following:

- (1) the appropriateness of the facility given the activities potential to impact Rhode Island's coastal resources;
- (2) the appropriateness of the structure given environmental site conditions;
- (3) the potential impacts of the structure and use of the facility on public trust resources (e.g., fin fish, shellfish, submerged aquatic vegetation, benthic habitat, commerce, navigation, recreation, natural resources, and other uses of the submerged lands, etc.);
- (4) the potential navigation impacts of the structure and associated use of the structure;
- (5) the potential aesthetic and scenic impacts associated with the structure;
- (6) the cumulative impacts associated with the increased density of existing recreational boating facilities in the vicinity of the proposed project. In considering these factors, the Council shall weigh the benefits of the proposed activity against its potential impacts while ensuring that it does not cause an adverse impact on other existing uses of Rhode Island's public trust resources;
- (7) the potential impacts to other recreational or commercial uses of the affected resource;
- (8) the extent to which any disruption of the public use of such lands is temporary or permanent;
- (9) the extent to which the public at large would benefit from the activity or project and the extent to which it would suffer detriment; and
- (10) the extent to which structures that extend over submerged lands are dependent upon water access for their primary purpose.

The primary objective of the PD shall be to document all efforts to avoid adverse impacts and to minimize and offset unavoidable adverse impacts to aquatic and terrestrial resources. Such documentation shall be in the form of an objective analysis of alternatives that satisfies the above review criteria and provides an evaluation of practicable alternate sites and/or designs. The applicant shall be required to attend a meeting with the CRMC staff to review the results of the Preliminary Determination.

(c) It is the policy of the Council that the applicant demonstrates through measurable standards referred to herein that the marina expansion cannot be accomplished within the existing Marina Perimeter Limit through utilization of more efficient configurations.

(d) The Council shall require persons proposing to construct new marina facilities or proposing to expand existing marina facilities to undertake measures that mitigate the adverse impacts to water quality

associated with the proposed activity. Applicants shall apply for a Water Quality Certificate from the RI Department of Environmental Management and Army Corps of Engineers Permit, concurrent with their application to CRMC.

(e) The construction of marinas, docks, piers, floats and other recreational boating facilities located on tidal lands or waters constitutes a use of Rhode Island's public trust resources. Due to the CRMC's legislative mandate to manage Rhode Island's public trust resources for this and subsequent generations, the Council must assess all proposed uses of public trust lands or waters on a case-by-case basis, examine reasonable alternatives to the proposed activity, and ensure that the public's interests in the public trust resources are protected.

(f) It is the Council's policy that new or significant marina expansions must demonstrate: 1) there is no alternative within the current in-water perimeter that would accommodate the expansion; 2) the area requested is the minimum necessary; and 3) the request avoids or minimizes impact to the aquatic environment and traditional uses in the area.

(g) The Council encourages all recreational boating facilities to provide an opportunity for a variety of boat sizes and types so as to provide access for the widest segment of the public to the Public Trust Resources.

(h) It is the Council's policy to require a public access plan or an enhancement to existing access, in accordance with Section 335 – Protection & Enhancement of Public Access to the Shore, as part of any application for a new marina, or for a significant expansion to any existing marina. In accordance with Section 120, a variance from this policy may be granted if an applicant can demonstrate that no significant adverse public access impacts will occur as a result of the project. The public access plan must detail the vehicle parking that will be provided to support the proposed public access. All boating facilities shall be designed and constructed in a manner which does not impede or detract from and whenever practicable promote public access along and to the shore.

B.2 Residential and Limited Recreational Boating Facility Policies

(a) All residential and limited recreational boating facilities are required to be registered by and with the Council and have posted on them a registration plate and number issued by the Council. Applicants for residential boating facilities are referred to the Council's Pre-existing Residential Boating Facilities Program for additional detailed standards of this policy and program.

(b) In order to limit the cumulative impacts of multiple individual residential and limited recreational boating facilities, the Council encourages the construction of facilities that service a number of users. It is the policy of the Council to manage the siting and construction of recreational and limited recreational boating facilities within the public tidal waters of the state to prevent congestion, and with due regard for the capability of coastal areas to support boating and the degree of compatibility with other existing uses of the state's waters and ecological considerations.

(c) All recreational and limited recreational boating facilities shall be designed and constructed to adequately withstand appropriate environmental conditions present at the site and to minimize impacts to existing resources.

(d) All residential boating facilities (reference Section 300.4.A.3) shall be contiguous to a private residence, condominium, cooperative or other home owner's association property and shall not accommodate more than four (4) boats.

(e) All limited recreational boating facilities (reference Section 300.4.A.4) must be contiguous to property zoned by the local municipality as institutional or open space (or an appropriate sub-district of institutional or open space zoning) and shall not accommodate more than four (4) boats.

(f) It is the Council's policy to authorize only one (1) residential or limited recreational boating facility (reference Sections 300.4.A.3 and 300.4.A.4, respectively) per lot of record as of (effective date of rule) to minimize user conflicts and cumulative impacts in tidal waters.

(g) Assents for limited recreational boating facilities (reference Section 300.4.A.4) remain valid provided the local parcel zoning remains unchanged from the time of the Assent. Modification of the local zoning designation to a category other than open space or institutional or their appropriate sub-district categories automatically nullifies the CRMC Assent.

C. Prerequisites

1. All new or significantly expanded recreational and limited recreational boating facilities shall be within the property line extensions of the proposed facility or have a signed agreement with the adjacent land owner(s) whose property line extension area is impacted. All structures shall be a minimum of twenty five (25) feet from the property line extension. Otherwise the applicant shall have a letter of no objection from the adjacent property owner stating that the reduced setback is acceptable. This letter and variance request shall be provided with the application.

C.1 Marina Prerequisites

(a) Persons proposing to establish a new marina or significantly expand a marina shall prepare and submit a Preliminary Determination application prior to submitting a Category B application.

(1) If in the opinion of the Council or Executive Director the proposed marina or significant expansion is not utilizing the public trust in accordance with this Section the applicant may be required to prepare alternative layouts that meet the standards of Section 300.4.

(2) The Preliminary Determination for new or significant expansions of marinas must assess the impacts of all the Environmental Site Conditions and the Planning / Design Requirements below:

(i) All designs that include water-based vessel storage are encouraged to explore both wet and dry storage alternatives

(ii) Persons proposing to establish a new marina or significantly expand an existing marina will be required to concurrently obtain a permit from the Army Corps of Engineers as well as a Water Quality Certificate from the RI DEM.

(iii) Persons proposing to establish a recreational mooring area are required to concurrently obtain a permit from the Army Corps of Engineers.

(iv) An application for a Council Assent for a marina and/or mooring area will shall include a map prepared and stamped by a professional land surveyor that designates the area of tidal water that will be incorporated within the marina by State Plane Coordinates (NAD83) and described by metes and bounds. All structural elements and components shall be designed and stamped by a professional engineer.

C.2 Residential and Limited Recreational Boating Facility Prerequisites

(a) All applications for residential and limited recreational boating facilities shall be initially reviewed by the Executive Director or the Deputy Director. The Executive Director or the Deputy Director may refer any such application to the Council for a hearing if based upon the application on its face a determination is made that the proposed activity warrants a Council hearing.

(b) The Executive Director or the Deputy Director shall, based upon the application and staff reports, make a determination that the application meets all the criteria as set out in Section 300.4.E.3 Standards for Residential and Limited Recreational Docks, Piers and Floats and any other applicable Council policy

or procedures. If a determination is made that all the above criteria are met, the application shall be processed as a Category A application.

(c) If a determination is made that all of the above criteria are not met for a residential or limited recreational boating facility then the matter shall be referred to Council as a Category B application.

(d) The Executive Director or the Deputy Director shall have the authority to consider and act upon variance requests to certain standards of this section pertaining to residential and limited recreational boating facilities and shall utilize the criteria and requirements of Section 120 of this program in its evaluation of variance requests.

(e) Variance requests to other standards of this section or to other appropriate and relevant sections of the CRMP must be made to the full Council. Variances shall not be considered by the Executive Director or the Deputy Director if there is a substantive objection, in accordance with Section 110, to the application.

(f) Variances may be granted to all of the standards contained in Section 300.4.E.3 Standards for Residential and Limited Recreational Docks, Piers and Floats and Section 200.2.C.3 (Type 2 – Low Intensity Use) provided engineering, biological and other appropriate concerns have been addressed except for the following:

- (1) the Executive Director or the Deputy Director may not grant a variance to Section 300.4.E.3.k;
- (2) the Executive Director or the Deputy Director may only grant a variance to within eighteen (18) inches of the marsh grade standard (Section 300.4.E.3.g) provided engineering, biological, and other appropriate concerns are met; and
- (3) the Executive Director or the Deputy Director may only grant a variance for the extension of a recreational or limited recreational boating facility out to 75 feet beyond MLW or up to a 50% increase beyond the fifty (50) foot standard (Section 300.4.E.3.l) provided engineering, biological, and other appropriate concerns are met.

D. Prohibitions

1. The building of new marinas in Type 1 and 2 waters is prohibited.

2. The building of residential and limited recreational boating facilities in Type 1 waters is prohibited. This prohibition shall not apply to functional structures previously assented by the Rhode Island Department of Harbors and Rivers, the Army Corps of Engineers, or the CRMC. Additionally, in those instances where an applicant cannot produce a previous assent but can demonstrate by clear and convincing evidence that a residential dock in Type 1 Waters pre-existed and has been continuously functional prior to the formation of the Council, the Council may grant a permit issued in accordance with the CRMC's Pre-existing Residential Boating Facilities Program. Any assent granted pursuant to this section shall be recorded in the land evidence records and is transferable to a subsequent owner or purchaser of the subject property, provided however, that all assent conditions are adhered to and the dock is removed at the termination of assent.

3. The unloading of catches by commercial fishing vessels at residential and limited recreational boating facilities is prohibited.

4. The building of structures in addition to the piles/ pile cap / stringer / deck / handrail on a residential or limited recreational boating facility, including but not limited to gazebos, launching ramps, wave fences, boat houses, and storage sheds, is prohibited. However, the construction of boat lifts may be allowed in Type 3, 5, and 6 waters, and in Type 2 waters in accordance with the provisions of Section 300.16 - Boat Lift and Float Lift Systems.

5. Rhode Island is an EPA designated a No Discharge State; all vessel discharges within State Waters are prohibited.

6. In Type 2 waters, the building of private launching ramps that propose to alter a coastal feature are prohibited, except along manmade shorelines. Where a coastal wetland fronts a manmade shoreline, the building of private launching ramps shall be prohibited. This prohibition does not apply to marinas with Council-approved marina perimeters (MPL).
7. New residential or limited recreational boating facilities are prohibited from having both a fixed T section or L-section, and a float.
8. Terminal Floats at residential and limited recreational docks in excess of 200 square feet are prohibited.
9. Marine railway systems are prohibited except in association with: a marina; or, a commercial or industrial water dependent activity in type 3, 5 and 6 waters.
10. The installation or use of more than one (1) residential or limited recreational boating facility (reference Sections 300.4.A.3 and 300.4.A.4, respectively) per lot of record as of **October 7, 2012** is prohibited.

E. Standards

1. All new or significantly expanded recreational boating facilities shall be located on site plans that clearly show the Mean Low Water (MLW) and Mean High Water Elevation (MHW) contours. The MLW shall be determined utilizing the "Short Term Tide Measurement" method. The Executive Director shall have the discretion to require a more accurate method of MLW determination when utilizing the Short Term Tide Measurement method will not provide accurate results. Guidance for the Short Term Tide Measurement is available from the CRMC.

At the discretion of the Executive Director, a previously established tidal determination may be utilized if the areas have similar tidal characteristics.

2. All new marinas, docks, piers, bulkheads or any other structure proposed in tidal waters shall be designed and certified (stamped) by a Registered Professional Engineer licensed in the State of Rhode Island.
3. All structural elements shall be designed in accordance with Minimum Design Criteria or the Minimum Design Loads for Buildings and Other Structures, current Edition published by the American Society of Civil Engineers (ASCE) or the RI State Building Code as applicable.
4. All new or significantly expanded recreational boating facility shall comply with the policies and prohibitions of Section 300.18 – Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern.

E.1 Marina Standards

(a) All new or significantly expanded marina designs shall be in accordance with Table 3- Minimum Design Criteria, but in no case shall any structural member be designed to withstand less than 100 year storm frequency, including breaking wave conditions in accordance with ASCE 7 (current edition) and FEMA Manual 55. All design elements including the bathymetry shall be stamped by a Rhode Island registered Rhode Island Professional Engineer. Any reconstruction of an existing marina destroyed by a catastrophic event shall have the piles and float restraint systems designed to meet the 100 year storm frequency, while other elements shall meet the requirements for a 50 year storm at a minimum.

(b) New Marinas or any significant expansion of an existing marina shall first submit a Preliminary Determination Request. The Executive Director may waive this requirement for Limited Marinas when there is minimal expected impact to the resources and no known use conflicts.

- (1) In order to minimize the impact of the significant expansion within tidal waters, the preferred mode of expansion shall be Dry-Stack marina, on the applicant's property or in areas controlled by the applicant, when consistent with local ordinances.

(2) As part of the requirements under Section 300.1 – Category B Requirements, the applicant shall state the basis for the number of wet slips requested.

(c) In evaluating the facility proposal, the applicant must demonstrate that:

(1) potential impacts have been or can be avoided to the maximum extent practicable when considering existing technology, infrastructure, logistics, and costs in light of approved project purposes; and

(2) impacts have been or can be minimized to an extent practicable and appropriate to the scope and degree of those environmental impacts; and

(3) any unavoidable impacts to aquatic and terrestrial resources have been or will be mitigated to an extent that is practicable and appropriate.

(d) The density of in-water vessels shall be greater than thirty (30) vessels per acre (except in destination harbors) within the MPL. If vessel density is less than the limit, reduction of the MPL will be required.

(e) Dockage for dry stack vessel loading and temporary storage shall be excluded from the marina density calculations, provided only dry stack vessels and vessels awaiting pump out utilize the area. There shall be no permanent or transient use of the docks used for dry stack vessels or pumpouts.

(f) Marina layout and geometry shall utilize existing bathymetry to the greatest extent possible. The layout shall provide for similar size vessels located such that fairway widths can be minimized in areas of smaller vessels. Fairways shall be a minimum of 1.5-times the length of the average vessel length utilizing the fairway.

(g) The maximum length of any contiguous dock, both fixed and floating shall be one thousand (1,000) feet for all new or expanded marinas.

(h) Sufficient sanitary facilities shall be provided to service the patrons of the marina, in accordance with Table 2 - Minimum Required Sanitary Facilities. The maximum distance from sanitary facilities for any slip shall be within a one thousand (1,000) foot radius from the facilities. This may require more than one sanitary facility location. Portable toilets may be considered sufficient for limited marinas.

Marinas with more than two hundred (200) vessels with an average length in excess of thirty eight (38) feet may be eligible for a reduction in the minimum number of facilities at the discretion of the Executive Director with an acceptable pump out plan.

Table 2

Minimum Required Sanitary Facilities

Number of Vessels	Toilets	Urinals	Pump Out locations
5 - 25	2	1	1
26-100	3	1	1
101-200	4	2	2
201-250	5	2	3
251-300	6	2	3

(i) Marina Owners shall submit documentation of compliance with the State of Rhode Island’s requirements of National Fire Protection Association (NFPA) 303 Standard for Marinas and Boatyards from the local or State Fire Official, where appropriate.

(j) All electrical installations shall be designed and installed in accordance with the requirements of the NFPA, State Building and Electrical code. The Operations & Maintenance plan shall certify that all applicable codes have been met.

(k) Sufficient parking shall be provided for the patrons of the marina. A standard of three hundred (300) square feet is required for each parking space; the minimum requirements for the total number of parking spaces provided is one (1) space for each one and one half (1.5) vessel. If parking for dry stack vessels is in the rack space, no additional parking is required. On grade Parking for dry stack shall be at one space for five (5) vessels. Parking for new or expanded marinas in destination harbors shall be one (1) space for every twenty five (25) vessels of new or expanded slips.

(l) A Council Assent for a marina permits the marina operator to undertake minor repairs and alterations of approved facilities without further review, where such repairs or activities will not alter the assented design, capacity, purpose or use of the marina. For the purposes of this section, the assented design, capacity, purpose or use of the marina shall be those characteristics associated with the physical configuration or construction, numbers and sizes of vessels accommodated at in-water facilities, and nature of operation as defined in the original Council Assent, respectively. Minor repairs and alterations to in-water facilities shall include repair or replacement of dock decking or planks, replacing pilings, extensions of slips and/or finger piers within the perimeter and capacity of the marina as defined within the original Assent, or as established in paragraph (n) of this section, and other activities of a similar and non-substantial nature. Minor repairs and alterations to upland facilities may take place upon Council approval of an operations and maintenance plan as identified below at (p) and shall include grading of parking and launch ramp areas, grouting of seawalls, plumbing and electrical work, maintenance of sidewalks, fences and walkways, flagpole installations, landscaping, signage and other activities of a similar and non-substantial nature. Minor repairs and alterations shall not be construed to include maintenance dredging, alterations, repairs or expansion of shoreline protection facilities, bulkheads, or breakwaters or other activities subject to review under other relevant sections of this program. All minor repairs and alterations shall take place within the assented design of the marina, or marina perimeter as defined in the original Council Assent or as established in accordance with paragraph (n) of this section. Any repair or replacement of floats for existing marinas shall meet current float design standards.

(m) In those instances where the minor repair or alteration would require the use of heavy machinery (such as a pile driver or grader), the Council shall be notified in writing at least ten (10) working days prior to undertaking the work. Notice of repair activities requiring the use of heavy machinery shall include the following:

- (1) A statement that the notice is given pursuant to Section 300.4.E.1.m;
- (2) A description of the proposed repair or alteration to be performed including a statement as to the size and type of materials to be used;
- (3) A copy of the original Council Assent or Division of Harbors and Rivers permit under which the proposed repair or alteration is to be performed;
- (4) A copy of the site plan from the original Council Assent showing the location of the proposed repair or alteration;
- (5) The name of the person on-site responsible for supervising the proposed repair or alteration; and
- (6) The anticipated dates on which the proposed repair or alteration shall commence and be completed.

(n) All marinas and/or mooring areas shall have a defined perimeter for in-water facilities, which shall describe and limit that area in which the repair or alteration activities described in paragraphs (l), (m) and (o) may take place. Operators of marinas may apply to the Council for definition and establishment of this perimeter at any time. Perimeters shall be defined on the basis of in-water facilities in place as of September 30, 1971, or subsequently assented structures. All new or modified Marina Perimeter Limit lines shall be a maximum of ten (10) feet outside of the marina structures. The MPL shall be designated on all plans with the corners designated by their State Plane Coordinates.

(o) It is permissible to have vessels berthed at a facility outside of the Marina Perimeter Limit if, in the opinion of the Executive Director, there are no conflicts with other users, or impacts to resources, or conflicts with the DEM Shellfish Program. All vessels shall be berthed parallel to piers and docks if outside of the MPL. Mediterranean style mooring (vessel perpendicular to the dock at the stern beyond the MPL) may be permissible in destination harbors if the Executive Director determines that there are no adverse impacts to existing navigation, fishing, commerce or recreational uses.

(p) Proposals for the alteration or reconfiguration of in-water facilities such as piers and/or mooring areas shall be reviewed in the following manner:

- (1) Alterations to the layout or configuration of in-water facilities within a previously approved MPL which do not increase the number of boats accommodated shall obtain a Certification of Maintenance in accordance with the requirements of Section 300.14;
- (2) Alterations which propose to increase the number of boats that may be accommodated at the in-water facilities of the marina within 25% of the capacity of the marina as defined in the original Council Assent, and do not propose to extend the facility beyond the defined perimeters (established pursuant to the original Council Assent or paragraph (n)) shall be reviewed as Category A applications. The Council's review shall establish that the alterations and/or expansion meet the 25% standard, and that the Council's standards for parking and sanitary facilities are met. If the 25% increase changes the marina type, the expansion shall be treated as a Category B application and all standards for the new marina designation shall apply; and
- (3) Alterations which propose to increase the numbers of vessels accommodated at the in-water facilities beyond 25% of the capacity as defined in the original Council Assent, and/or extend the facility beyond the defined perimeters, or alter the purpose of the facility shall be reviewed as a Category B application. The Executive Director may allow a one time expansion of the MPL for Limited Marinas in Type 2 waters up to 25% of the assented/original boat capacity.
- (4) Alterations to marinas in Type 2 waters shall have all in-water vessels and dry stack vessels count towards the 25% increase in vessel/boat capacity.

(q) New marinas and significantly expanded existing marinas must submit a draft Operations & Maintenance plan with their marina permit application. Existing marinas must submit the plan within one (1) year of the effective date of this regulation. Whenever the marina ownership or leasehold changes, the O&M plan must be revised and resubmitted for approval. Plan approvals are valid for three (3) years without any change in ownership, expansion or major infrastructure work.

(r) All O&M plans shall include the information outlined in the guidance document "Marina Operations and Maintenance Plans" by the CRMC.

(s) Any Marina that has a "Clean Marina" certification issued by the CRMC will only be required to submit the facility layout plan (plan requirements in guidance Document "Marina Operations and Maintenance Plans" by the CRMC) and Clean Marina certification approval letter in lieu of an O&M plan.

(t) Any alterations to mooring areas shall be consistent with any CRMC approved municipal harbor management rules, regulations or programs, as defined in Section 300.15 of this program.

(u) All new marina facilities shall be required to install a marine pumpout facility. Any significant expansion or alteration of an existing marina facility that results in greater than or equal to fifty (50) new slips or where adequate pumpout service is not currently available shall be required to install a marine pumpout facility. Any expansion or alteration of an existing marina facility which proposes to increase the number of vessels accommodated at the in-water facilities beyond 25% of the capacity as defined in the original Council Assent shall be required to undertake mitigative measures. If 25% of the capacity, as defined in the original Council Assent, is greater than or equal to fifty (50) slips, then a marine pumpout facility shall be required. If 25% of the capacity, as defined in the original Council Assent, is less than

fifty (50) slips, then the Council shall require either the installation of a marine pumpout facility or other suitable mitigation measures. In no case shall the number of pump outs be less than those in the Minimum Required Sanitary Facilities, shown in Table 2 – Minimum Required Sanitary Facilities.

(v) If the applicant can demonstrate that there are already enough marine pumpout facilities to serve all of the recreational boating facilities found in the region, then the Council may waive the requirement for a marine pumpout facility and require alternative mitigative measures.

(w) All marine pumpout facilities or pumpout stations shall be designed in a manner that serves the boating public. Pumpout facilities shall be located in an accessible location. The dock utilized for the pumpout shall not be available for dockage of any kind beyond the reasonable time for vessel pumpout. In addition, all marine pumpout facilities shall be open for the general public's use. However, marina operators may charge a fair and nondiscriminatory fee to cover the cost of constructing and operating these facilities. Portable pumpouts (including vessel mounted pumpouts) shall only be allowed after a facility has one (1) fixed pumpouts in place that meets all requirements. Portable pumpouts are not considered to satisfy the requirements for a pumpout except in the case of a Limited Marina.

(x) All new marina facilities shall meet the setback policies and standards contained in municipal harbor management plans and/or harbor ordinances approved by the Council. However, in all cases marina facilities shall be setback at least fifty (50) feet from approved mooring fields and three times the authorized project depth from federal navigation projects (e.g. navigation channels and anchorage areas).

(y) All new or replacement floats shall utilize floatation that was specifically fabricated for marine use and warranted by its manufacturer for such use. Foam billets or foam bead shall not be utilized unless it is completely encapsulated within impact resistant plastic. All existing installations of non-encapsulated floatation shall be replaced at a rate of 10% per year (minimum) during normal maintenance. This shall be detailed in the O&M plan. The start of mandatory replacement shall begin five (5) years after adoption of this modification (October 2006).

(z) All new marinas (including expansions) and water dependent facilities shall be designed in accordance with the latest Accessible Boating Facilities Guidelines by the United States Access Board. The number of fully accessible slips shall be in accordance with the latest version of the guidelines but in no case shall be less than 2% of the facility. Limited Marinas are not required to meet the accessibility guidelines, but are encouraged to do so.

(aa) The Executive Director, in his discretion, shall have the authority to determine which of the above standards shall be applied to Limited Marinas.

E. 2. Launching Ramp Standards

(a) All public launching ramps shall be designed to allow emergency vehicle turning at the top of the ramp. The ramp shall be designed with two (2) areas to allow vessel prep and tie down in close proximity of the haul/launch area. All parking for boat trailers shall be angled only, with a strong preference for pull through parking. All ramps shall have clearly marked parking for car top vessel parking.

(b) Ramps shall be constructed at an angle no greater than 15 % from the horizontal. Where upland modification is necessary, the slope will be created, where possible, by cutting back into the upland, rather than by placing fill on a shoreline feature. Ramps shall be approximately even with beach grade.

(c) All new or reconstructed public ramps shall extend a sufficient distance inland to prevent washout at the inland edge and shall extend a minimum of four (4) feet beyond extreme low water. Single-lane ramp width shall not be less than fifteen (15) feet.

(d) Side slopes of the ramp (above water line) shall be constructed of sloped riprap or, if the slope permits, vegetated.

(e) See Section 300.2, "Filling, Removing, or Grading of Shoreline Features," and Section 300.7, "Construction of Shoreline Protection Facilities."

E.3. Residential and Limited Recreational Docks, Piers, and Floats standards

- (a) All residential and limited recreational dock designs shall be in accordance with Table 3 - Minimum Design Criteria, but in no case shall any structural member be designed to withstand less than 50 year storm frequency, including breaking wave conditions in accordance with ASCE 7 (current edition) and FEMA Manual 55. All design elements including the bathymetry shall be stamped by a Rhode Island registered Rhode Island Professional Engineer.
- (b) Applications for all residential and limited recreational boating facilities shall indicate all work associated with these structures including at a minimum: a bottom survey showing water-depth contour lines and sediment types along the length of the proposed structure the seaward and landward extent of any SAV or coastal wetland vegetation present at the site, the permitted/authorized dimensions of any CRMC buffer zone and/or access way, as well as all associated work involved in accessing the proposed facility. All pathways, boardwalks, and cutting or filling of coastal features shall be specified. All such work shall be in accordance with applicable standards for "Filling, Removing, or Grading" (Section 300.2) and "Residential, Commercial, Industrial, and Public Recreational Structures" (Section 300.3). All of the above work shall be certified by a Professional Engineer licensed in the State of Rhode Island.
- (c) Fixed structures which are for pedestrian access only shall be capable of supporting forty (40) pounds per square foot live load as well as their own dead weight; floating structures shall be capable of supporting a uniform twenty (20) pounds per square foot live load, or a concentrated load of four hundred (400) pounds. A written certification by the designer that the structure is designed to support the above design loads shall be included with the application.
- (d) No creosote shall be applied to any portion of the structure.
- (e) A residential or limited recreational boating facility shall be a maximum of four (4) feet wide, whether accessed by a fixed pier or float. The terminal float size shall not exceed one hundred fifty (150) square feet to be reviewed as a Category A application. A variance may be granted up to 200 square feet in excessive fetch areas, however this shall be reviewed as a Category B application at the full Council. In the absence of a terminal float, a residential boating facility may include a fixed terminal T or L section, no greater than four (4) by twenty (20) feet in size.
- (f) All new or replacement floats shall utilize floatation that was specifically fabricated for marine use and warranted by its manufacturer for such use. Foam billets or foam bead shall not be utilized unless they are completely encapsulated within impact resistant plastic.
- (g) Where possible, residential boating facilities shall avoid crossing coastal wetlands. In accordance with Section 300.17, those structures that propose to extend beyond the limit of emergent vegetative wetlands are considered residential boating facilities. Facilities shall be located along the shoreline so as to span the minimal amount of wetland possible. Facilities spanning wetlands shall be elevated a minimum of four (4) feet above the marsh substrate to the bottom of the stringers, or constructed at a 1:1 height to width ratio. Construction in a coastal wetland shall be accomplished by working out from completed sections. When pilings are placed within coastal wetlands, only the immediate area of piling penetration may be disturbed. Pilings should be spaced so as to minimize the amount of wetland disturbance. No construction equipment shall traverse the wetland while the facility is being built.
- (h) Owners are required to maintain their facilities in good working condition. Facilities may not be abandoned. The owner shall remove from tidal waters and coastal features any structure or portions of structures which are destroyed in any natural or man-induced manner.
- (i) Float ramps and other marine appurtenances or equipment shall not be stored on a coastal feature or any area designated as a CRMC buffer zone.
- (j) The use of cribs for structural support shall be avoided. The use of cribs as support in tidal waters may be permitted given certain environmental design considerations. However, in these instances the size and square footage shall be minimized and the structure cannot pose a hazard to navigation. When cribs are

permitted for structural support, they must be removed when the useful life of the structure has ceased (e.g. the structure is no longer used as a means of accessing tidal waters).

(k) Residential and limited recreational boating facilities shall not intrude into the area within twenty five (25) feet of an extension of abutting property lines unless (1) it is to be common structure for two or more adjoining owners, concurrently applying or (2) a letter or letters of no objection from the affected owner or owners are forwarded to the CRMC with the application. In the event that the applicant must seek a variance to this standard, the variance request must include a plan prepared by a RI registered Land Surveyor which depicts the relationship of the proposed facility to the effected property line(s) and their extensions.

(l) Residential and limited recreational boating facilities shall not extend beyond that point which is (1) 25% of the distance to the opposite shore (measured from mean low water), or (2) fifty (50) feet seaward of mean low water, whichever is the lesser.

(m) All residential and limited recreational docks, piers, and floats shall meet the setback policies and standards contained in municipal harbor management plans and/or harbor ordinances approved by the Council. However, in all cases, residential docks, piers, and floats shall be setback at least fifty (50) feet from approved mooring fields and three-times the U.S. Army Corps or Engineers authorized project depth from federal navigation projects (e.g., navigation channels and anchorage areas).

(n) No sewage, refuse, or waste of any kind may be discharged from the facility or from any vessel utilizing it.

(o) A Council Assent for a residential or limited recreational boating facility permits the owner to undertake minor repairs of approved facilities without further review, where such repairs will not alter the assented and/or permitted design, capacity, purpose or use of the facility. For the purposes of this section, minor repairs shall include the repair or replacement of dock decking or planks, hand railings and support, and other activities of a similar and non-substantial nature. Minor repairs do not include alterations to the approved design of the facility, expansion of the facility, or work requiring the use of heavy machinery (such as a pile driver); these activities require that a Certification of Maintenance be obtained from the Council in accordance with Section 300.14. Residential boating facilities shall be in continuous and uninterrupted use to meet this standard, in accordance with permit conditions.

(p) Materials used for the construction of residential and limited recreational boating facilities shall not include steel or concrete piles.

(q) The surface of the dock, pier and float shall be designed in a manner which provides safe traction and allows for the appropriate drainage of water.

(r) Geologic site conditions shall exist which are appropriate for driven pile structural support.

(s) As part of a residential or limited recreational boating facility, the terminal float may be designed such that it facilitates the access of small vessels such as kayaks, dinghies, personal water craft, etc., onto the float, provided that all other programmatic requirements are met. Mechanical apparatus to accomplish this shall not exceed twenty four (24) inches in height from the top of the float.

(t) All residential and limited recreational docks shall have the centerline of the structure between its most seaward and most landward portion designated on the plans with State Plane Coordinates (NAD83). A WAAS enabled GPS system with an accuracy of +/- 3 meters shall be considered acceptable. The Executive Director shall have the discretion to require greater accuracy.

(u) Recreational boating facilities other than marinas and those facilities associated with residential development, where applicable, shall follow the design standards contained within this Section, including those described in Table 3.

(v) Lateral Access shall be provided under, around or over as appropriate for the site conditions at all new residential docks.

(w) In order to minimize impacts to existing areas of Submerged Aquatic Vegetation (SAV) habitat, new residential boating facilities or modifications to existing residential boating facilities shall be designed in accordance with the guidelines and standards contained within Section 300.18, as most recently revised. Facilities shall be located along the shoreline so as to impact the minimal amount of habitat possible.

(x) The long-term docking of vessels at a recreational boating facility shall be prohibited over SAV. Such facilities shall be used for touch and go only.

(y) All residential and limited recreational docks shall be certified by the Design Engineer that it was constructed according to the approved plans within typical marine construction standards. The Executive Director shall have the discretion to require AS-BUILT survey plans of residential and limited recreational docks that includes property lines.

E.3.1 Residential and Limited Recreational Docks with Excessive Fetch Standards

- (a) A location shall be considered to have excessive fetch if there is a 20° sector over four miles in any direction in which wind can blow over the water to generate waves.
- (a) Boat lifts, suitably designed and installed, are encouraged for docks with excessive fetch.
- (b) Residential and limited recreational docks with excessive fetch shall provide uplift calculations as part of the required calculation package.
- (c) All structural elements, including the boat lift, shall be designed to withstand the 100 year storm frequency, including breaking wave conditions in accordance with ASCE 7 (current edition) and FEMA Manual 55.
- (d) All residential and limited recreational docks with excessive fetch shall have an As-built plan on file with the CRMC within thirty (30) days of construction that certifies conformance with the approved plans.
- (e) All residential and limited recreational docks with excessive fetch shall be inspected and certified by a Registered Professional Engineer licensed in Rhode Island that all elements of the dock and lift system meet the requirements of ASCE 7 (current edition) or FEMA Manual 55 every five (5) years.

TABLE 3 - MINIMUM DESIGN CRITERIA			
Min. Pile Tip diameter	10"	Min / Max Float freeboard	8" / 30"
Min. Pile But diameter	12"	Maximum Fetch for residential docks	4 miles
Marina Minimum Pile embedment	15 feet	Minimum Stringer/Joist	3"x10"
Residential Minimum Pile embedment	10 feet	Minimum through bolt Hardware Diameter – hot dipped galvanized	¾"
Minimum Marina Deck and Float load	60 psf LL 500 lb concentrated	Minimum Cross bracing	3"x10"
Residential Deck load	40 PSF LL 400 LB concentrated	Minimum lag bolt diameter	½"
Min Float Freeboard *including LL and DL	12"	Minimum Water depth at the terminus of recreational boating facilities	18" MLW
Design Wind Loads	wind gust based on 50 year return and natural period of 60 seconds	Required Datum	MLW
Wave Conditions (min)	All fixed and floating structure shall be designed for a 3'		

	minimum		
Min Pile Cut Off	V zone elevation + float freeboard + 1'		
Steel or cast steel	490 pcf		
Cast iron	450 pcf		
Aluminum alloys	175 pcf		
Timber (untreated)	40 - 50 pcf		
Timber (treated)	45 - 60 pcf		
Concrete, reinforced (normal weight)	145 - 155 pcf		
Concrete, reinforced (lightweight)	90-120 pcf		
Asphalt paving	150 pcf		
Granite Block	165 pcf		

Section 300.5

Mooring and Anchoring of Houseboats and Floating Businesses

A. Definitions

1. Houseboat; a building constructed on a raft, barge, or hull that is used primarily for single- or multiple-family habitation; if used for transportation this use is secondary.
2. Floating business; a building constructed on a raft or hull that is represented as a place of business, including but not limited to waterborne hotels, restaurants, marinas or marina-related businesses.

B. Policies

1. The Council considers that placement of houseboats and floating businesses in tidal waters is a low-priority use of any coastal water body and is acceptable only in limited numbers and in specific areas. Houseboats and floating businesses are not classified as water-dependent, since it is not their primary purpose to serve as a means of on-water transportation or recreation.
2. When in transit, a houseboat or floating business is considered a boat or vessel and must meet all applicable state and Coast Guard standards and regulations.
3. A Council Assent for a floating business shall include a lease with the Council that shall be determined using fair market value lease rates for the adjacent upland value so that a proper evaluation of uses can be made.

C. Prohibitions

1. Houseboats and floating businesses are prohibited from berthing or mooring in coastal ponds (in accordance with R.I.G.L. § 46-22-91) and in all Type 1 and 2 waters.
2. Houseboats are prohibited from mooring or anchoring in all other tidal waters of the state unless within the boundaries of a marina.
3. Floating businesses are prohibited from mooring or anchoring in the tidal waters of the state unless within the boundaries of a marina or a port.
4. Discharge of sanitary sewage to tidal waters from houseboats or floating businesses using marina or port facilities by devices other than approved by the Coast Guard is prohibited.

D. Additional Category B Requirements

1. Applicants for floating businesses shall: (a) demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity; (b) demonstrate that there will be no significant conflict with such water-dependent uses and activities as recreational boating, fishing, navigation, commerce, and aesthetic enjoyment of the waterfront; and (c) demonstrate that there will be no significant conflict with riparian rights or harbor lines.

E. Standards

1. Applicants for either houseboats or floating businesses shall meet all pertinent standards given in "Recreational Boating Facilities" (Section 300.4) under standards for residential docks, piers, and floats.
2. Houseboats and floating businesses shall tie into marina or port holding-tank pumpout facilities where available.

Section 300.6

Treatment of Sewage and Stormwater

A. Definitions

1. **Sewage:** Pursuant to R.I.G.L. § 46-12-1, sewage means “fecal material and human waste, or wastes from toilets and other receptacles intended to receive or retain body waste, and any wastes, including wastes from human households, commercial establishments, and industries, and storm water runoff...” For purposes of the Coastal Resources Management Program, “sewage” is further defined to include freshwater discharges, including stormwater runoff that may significantly alter the salinity of tidal waters or salt ponds; the terms “wastewater” and “septage”, as defined by the DEM OWTS Rules; and discharges of heated waters to tidal waters of the state.
2. **Onsite wastewater treatment systems (OWTS):** means any system of piping, tanks, dispersal areas, alternative toilets or other facilities designed to function as a unit to convey, store, treat or disperse wastewater by means other than discharge into a public sewer system.
3. **Point source discharges:** means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which sewage is or may be discharged.
4. **Sewage treatment plants:** sewage collection and treatment facilities, including state, municipal, or privately owned and operated collection, pumping, treating, disposal or dispersion facilities designed for the treatment of sewage from residences, commercial buildings, industrial plants and institutions, together with any groundwater, surface water, or surface runoff that may be present in the waste stream.
5. **Stormwater runoff:** that portion of precipitation that does not naturally infiltrate into the landscape (*e.g.*, without human influence) but rather travels overland as surface flow. It is also commonly referred to as "stormwater". Stormwater runoff is a significant contributor of pollutants such as sediments, bacteria, nutrients (nitrogen and phosphorus), hydrocarbons (oil and grease), metals, and other substances that adversely affect water quality and the coastal environment. In addition, significant discharges of stormwater may alter salinity and thereby, adversely impact the coastal environment, especially in poorly flushed estuaries and embayments.
6. **Stormwater management plan:** A plan describing the proposed methods and measures to prevent or minimize stormwater runoff (water quality and quantity) impacts associated with a development project both during and after construction. It identifies selected low impact development (LID) source controls and treatment practices to address those potential impacts, the engineering design of the treatment practices, and maintenance requirements for proper performance of the selected practices. The stormwater management plan details how a project complies with the eleven (11) minimum stormwater management standards and performance criteria detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. When such a plan is implemented, it provides protection and restoration of receiving waters by reducing pollutant loadings and other negative impacts associated with changes in land use (*i.e.*, urbanization).
7. **Redevelopment:** is defined as any construction, alteration, or improvement that disturbs a total of 10,000 square feet or more of existing impervious area where the existing land use is commercial, industrial, institutional, governmental, recreational, or multi-family residential.
8. **Low Impact Development (LID):** is a site planning and design strategy aimed at maintaining or replicating the predevelopment hydrology through the use of site planning, source control, and small-scale practices integrated throughout a site to prevent, infiltrate, and manage stormwater runoff as close to its source as possible. LID achieves natural resource protection by replenishing groundwater supplies, minimizing the stormwater runoff volume discharged to surface waters, and improving water quality. Examples of LID practices include bioretention, vegetated swales, stormwater planters, porous pavement or concrete, greenroofs, rainwater collection systems for water reuse, and other similar methods.

9. **Water quality volume (WQ_v):** the storage needed to capture and treat 90% of the average annual stormwater runoff volume, and in Rhode Island this equates to one (1)-inch of runoff from impervious surfaces.
10. **Maximum extent practicable:** means the applicant has made all reasonable efforts to meet the standard, including the evaluation of alternative methods to achieve the same level of treatment. To show that a proposed development has met a standard to the maximum extent practicable, the applicant must demonstrate the following: (1) all reasonable efforts have been made to meet the standard in accordance with current local, state, and federal regulations; (2) a complete evaluation of all possible management measures has been performed; and (3) if full compliance cannot be achieved, the highest practicable level of management is being implemented.

B. Policies

1. It is the Council's policy to maintain and, where possible, improve the quality of coastal wetlands, contiguous freshwater wetlands, freshwater wetlands in the vicinity of the coast, groundwater resources and tidal and salt pond surface waters. In so doing, the Council requires the use of low impact development (LID) strategies as the primary method of stormwater management to reduce the volume of stormwater runoff to surface waters, recharge groundwater supplies, and improve overall water quality.
2. It is the Council's policy to minimize the amount of onsite wastewater treatment system (OWTS)-derived nitrates and other potential contaminants which may leach into salt ponds and all other Type 1, 2, and 3 waters.
3. The Council encourages applicants for a CRMC Assent to install, alter or repair an OWTS to meet on site with CRMC staff prior to undertaking of OWTS groundwater and soil tests to discuss the location of the system and buffer zones, where applicable.
4. It is the Council's policy to require the proper management and treatment of stormwater through the preparation and implementation of a stormwater management plan in accordance with the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*, and which satisfies the requirements of the RICRMP and any applicable Special Area Management Plan.
5. The most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual* provides the appropriate methods for the preparation of stormwater management plans and the treatment of stormwater using LID practices and methods within the CRMC's jurisdiction. The Council also recognizes that the most recent version of the *Rhode Island Soil and Erosion and Sediment Control Handbook*, and its amendments, published jointly by the Rhode Island Department of Environmental Management and the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) provides additional guidance and supplemental information with respect to the management and treatment of stormwater.
6. It is the Council's policy that all stormwater management plans shall take into consideration all potential impacts associated with the discharge of stormwater runoff into the coastal environment. Potential impacts include, but are not limited to, the following: (i) impacts to salt marshes such as changes in species composition due to the introduction of freshwater to high marsh areas; (ii) changes in the salinity of receiving waters; (iii) thermal impacts to receiving waters; (iv) the effects of introducing stormwater runoff to receiving waters with low dissolved oxygen concentrations; and (v) other potential water quality impacts.
7. The Council's policy is to ensure that all projects are planned, designed, and developed in order to: (1) protect areas that provide important water quality benefits and/or are particularly susceptible to erosion and sediment loss; (2) limit increases of impervious surface areas, except where absolutely necessary; (3) limit land disturbance activities such as clearing and grading and cut and fill to reduce erosion and sediment loss; and (4) limit disturbance of natural drainage features and vegetation. Additionally, stormwater management practices should be designed as landscape amenities to include native plant species on project sites. The Council recommends applicants to use the "Rhode Island Coastal Plant Guide," an interactive, web-based plant list prepared by the URI Cooperative Extension

Education Center in consultation with the CRMC and available online at:
www.crmc.ri.gov/coastallandscapes.html.

C. Prerequisites

1. Applicants seeking a Council Assents to construct, alter, or repair onsite wastewater treatment systems or point source discharges shall first obtain the requisite permit(s) from the Department of Environmental Management.
2. The discharge standards, effluent limitations and pretreatment standards established for the discharge of pollutants to waters of the State under the Rhode Island Pollutant Discharge Elimination System (RIPDES) program, and administered by the Department of Environmental Management (DEM), are the State's water pollution control requirements. Applicants for projects for which an Individual RIPDES Permit is required shall obtain said permit from DEM and submit the Individual RIPDES Permit with the CRMC Assent application. **Note:** Projects that are eligible to submit a Notice of Intent (NOI) for coverage under a RIPDES General Permit are not required to submit the RIPDES Authorization with the CRMC Assent application. Applicants for such projects, however, are encouraged to file a Notice of Intent (NOI) with DEM concurrently with their CRMC application to allow a coordinated review between the agencies.
3. The Council shall formally review proposed actions only after all other applicable state/local requirements have or will be met. The Council, however, will comment on preliminary plans for major facilities to assist in the planning process.
4. The Executive Director or the Council may require that an applicant obtain a DEM System Suitability Determination, as provided in the DEM OWTS Rules, for onsite wastewater treatment systems that pre-date 1968.

D. Prohibitions

1. Point source discharges of sewage and/or stormwater runoff are prohibited on unconsolidated coastal banks and bluffs.
2. New and enlarged stormwater discharges to the high salt marsh environment bordering Type 1 and Type 2 waters and within salt marshes designated for preservation which border Type 3, 4, 5, and 6 waters are prohibited. Stormwater discharges to existing well flushed tidal channels within high marshes shall not be subject to this prohibition. All such discharges, however, shall meet the applicable standards contained herein.
3. Point source discharges of sewage are prohibited in Type 1 waters.

E. Standards

1. For Onsite Wastewater Treatment Systems (OWTS):
 - (a) See standards given in "Filling, Removing, or Grading" (Section 300.2).
 - (b) The construction, repair or alteration of all OWTS and components shall conform to the standards set forth in the most recent *Rules Establishing Minimum Standards relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems* promulgated by the Department of Environmental Management (referred to herein as DEM OWTS Rules).
 - (c) Site grading around the OWTS shall direct the flow of surface runoff water away from the OWTS and meet all applicable requirements of the DEM OWTS Rules.
 - (d) Sub-drains constructed to lower groundwater levels in an area where an OWTS will be located shall: (1) conform to all applicable DEM rules; (2) have no piping located between the anticipated OWTS and the shoreline; and (3) have exposed outfalls suitably protected against shoreline erosion and scour.

- (e) When new construction, renovation or a change of use is proposed for existing buildings, an OWTS Suitability Determination shall be obtained by the applicant from the Department of Environmental Management to indicate that the existing OWTS meets all applicable DEM OWTS Rules or the applicant shall submit a building official document indicating that a DEM OWTS Suitability Determination is not required.
 - (f) Connections to OWTS and cesspools that are abandoned shall be removed, blocked, or otherwise disconnected, and abandoned cesspools and septic tanks shall be pumped dry and filled with clean fill in accordance with all applicable DEM OWTS Rules.
 - (g) Where necessary, barriers shall be constructed to prevent vehicles from passing or parking over septic systems, unless permissible in accordance with DEM OWTS Rules.
 - (h) The repair of OWTS along the Rhode Island south shore from Watch Hill to Narragansett shall conform to the DEM "OWTS Repair Guidance in Critical Erosion areas."
2. The 1993 *Rhode Island Stormwater Design and Installation Standards Manual* ("Stormwater Manual") will be superseded by the 2010 Stormwater Manual upon effective date of adoption by the Council. Unless otherwise provided in subsections (a) or (b), the requirements of the 2010 Stormwater Manual, as amended, shall apply to all CRMC applications submitted on or after January 1, 2011.
- (a) Applicants for projects which have a currently valid and vested Master Plan approval from a local planning board or commission on or before March 31, 2011 may elect to comply with the 1993 Stormwater Manual instead of the 2010 Stormwater Manual provided that a complete application for the project is submitted to the CRMC on or before June 30, 2011. Any project applicant that received Master Plan approval who submits an application to the CRMC after June 30, 2011 shall comply with the 2010 Stormwater Manual, including any future phases of a phased project having received Master Plan approval as of March 31, 2011. Applicants shall, at the time of application, submit a copy of the Master Plan approval document(s) demonstrating eligibility under this subsection. This subsection applies only to those projects which are required to obtain local Master Plan approval pursuant to R.I.G.L. § 45-23-40.
 - (b) In the case of any RIDOT project or a local government road or bridge project, the applicant may elect to comply with the 1993 Stormwater Manual instead of the 2010 Stormwater Manual provided that a complete application for the project is submitted to the CRMC on or before June 30, 2011. Any application submitted to the CRMC after June 30, 2011 shall comply with the 2010 Stormwater Manual.
3. For stormwater management the Council requires, in accordance with the "Smart Development for a Cleaner Bay Act of 2007" (R.I.G.L. § 45-61.2), that all applicable projects meet the following requirements:
- (a) Maintain pre-development groundwater recharge and infiltration on site to the maximum extent practicable;
 - (b) Demonstrate that post-construction stormwater runoff is controlled, and that post-development peak discharge rates do not exceed pre-development peak discharge rates; and
 - (c) Use low impact-design techniques as the primary method of stormwater control to the maximum extent practicable.
4. Residential, commercial, industrial or public recreational structures as defined in Section 300.3 shall provide treatment and management of stormwater runoff for all new structural footprint expansions, including building rooftops, greater than six (600) hundred square feet in size and any new impervious pavement, driveways, sidewalks, or parking areas, regardless of size. Applicable projects shall submit a stormwater management plan that demonstrates compliance with the eleven (11)

minimum stormwater management standards and performance criteria as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. Single-family dwelling projects, however, may meet these provisions as detailed in 300.6.E.8 below.

5. Roadways, highways, bridges, and other projects subject to Section 300.13 shall provide treatment and management of stormwater runoff for all new impervious surfaces. These projects shall submit a stormwater management plan that demonstrates compliance with the eleven (11) minimum stormwater management standards and performance criteria as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. Any improvement projects to existing roads, highways and bridges and other projects subject to Section 300.13 that result in the creation of new impervious surfaces shall provide treatment and management of stormwater as above for all new impervious surfaces. Maintenance activities such as pavement resurfacing projects, replacement of existing drainage systems, minor roadway repairs, or emergency roadway and drainage repairs are excluded from these requirements provided the project does not result in an expansion of the existing impervious surface area, new or enlarged stormwater discharges, or the removal of roadway materials down to the erodible soil surface of 10,000 square feet or more of existing impervious area.
6. Unless exempted as a maintenance activity herein, any **redevelopment** that disturbs 10,000 square feet or more of existing impervious surface coverage shall comply with Minimum Stormwater Standard 6 (Redevelopment and Infill Projects) of the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. Maintenance activities subject to Section 300.14 are excluded from these requirements provided there is no expansion of the existing impervious surface area and no new or enlarged stormwater discharges resulting from the maintenance activity.
7. All stormwater management plans shall take into consideration potential impacts associated with the discharge of stormwater runoff into the coastal environment. Applicants shall address these potential impacts to include, but not limited to, the following: (i) impacts to coastal wetlands such as changes in species composition due to the introduction of freshwater to high marsh areas; (ii) changes in the salinity of tidal receiving waters; (iii) thermal impacts to receiving waters; (iv) effects of introducing stormwater runoff to receiving waters that have low dissolved oxygen concentrations; and (v) other potential water quality impacts as may be identified by CRMC staff.
8. Applicants for **single-family residential** dwellings and accessory structures shall treat the stormwater runoff water quality volume (**WQ_v**) from all new building rooftops greater than six (600) hundred square feet in size and any new impervious driveways and parking areas, regardless of size, as indicated in (a) and (b) below. All dwelling and accessory structure rooftop expansions constructed within a 12-month period shall be counted towards the 600 square foot threshold. Once the 600 square foot threshold is exceeded, stormwater management must be provided for all rooftop expansions constructed within that 12-month period. Applicants for single-family dwelling projects may use the design guidance and performance criteria in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual* or the most recent version of the RI Stormwater Management Guidance for Individual Single-Family Residential Lot Development. Applicants for single-family dwellings and accessory structures on CRMC-designated barriers shall manage stormwater runoff as provided in (a) below. Pretreatment of stormwater runoff is not required for single-family residential applications.
 - (a) Applicants for single-family dwellings and accessory structures located on CRMC-designated barriers shall manage stormwater runoff as follows:
 - (1) Runoff from rooftops shall be directed by non-erosive sheet flow onto vegetated areas surrounding the dwelling or accessory structure; and

- (2) Construction of driveway and parking surfaces shall be limited to crushed stone, crushed shell, open plastic grid systems filled with sand, gravel or vegetation, or any combination of the preceding, to prevent damage to other properties during major storm events. Stormwater runoff shall be directed by non-erosive sheet flow onto vegetated areas along side the driveway or parking area.
9. New or enlarged stormwater discharges to salt marshes and well flushed tidal channels within high marshes shall only be permitted when the applicant can clearly demonstrate that no reasonable alternatives exist (*e.g.*, no other discharge locations having a gravity flow outlet are available and impervious surfaces have been kept to an absolute minimum) and when no adverse impacts to the salt marsh will result. In these instances, the applicant shall meet all applicable standards contained in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. This standard does not apply to low salt marsh environments with an average width along the property of less than 35 feet.
10. Stormwater open drainage and pipe conveyance systems must be designed to provide adequate passage for flows leading to, from, and through stormwater management facilities for at least the 10-year, 24-hour Type III storm event. Applicants may not be required to control post-development peak discharge rates at pre-development peak discharge rates provided the project design provides for non-erosive stormwater discharges to tidal waters.
11. Applicants may be required to submit a pollutant loading analysis to demonstrate that a proposed project will not unduly contribute to, or cause, water resource degradation when such projects are located in sensitive coastal resource areas. When a pollutant loading analysis is required, the applicant shall use the method detailed in Appendix H of the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. If the Council determines that any proposed stormwater discharge will result in an unacceptable discharge of pollutants to the tidal waters of Rhode Island, the Council shall require the applicant to mitigate the pollutant loads to acceptable levels using the practices detailed in the stormwater manual. Frequently, this can be accomplished using these practices in series to achieve higher pollutant removal efficiencies.
12. The use of proprietary hydrodynamic (swirl) separator or filter devices shall be limited to pre-treatment applications only, unless the device has met the requirements of the Technology Assessment Protocol (TAP) as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*. The CRMC may, however, approve such devices in situations where end-of-pipe retrofit solutions are the only alternative available when site constraints limit the use of standard low impact development methods for the treatment and management of stormwater runoff. In such circumstances, however, the use of such proprietary devices shall conform to the standards and performance criteria set forth in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual* to the maximum extent practicable.
13. For outfalls:
 - (a) Work on outfalls, drainage channels, etc., shall proceed from the shoreline toward the upland in order that no unfinished or un-stabilized lower channel portions be subjected to erosion-producing velocities from upstream. If this cannot be accomplished, all flow shall be diverted from the unfinished areas until stabilization is completed.
 - (b) Where possible, outfall pipe slopes shall be designed for an exit velocity of less than 5 feet per second.
 - (c) Screens or grates shall be placed over the end of large outfalls to trap debris.
 - (d) Beaches or other coastal features in front of outfalls shall be returned to original grade.
 - (e) Riprap placed on beaches shall not increase the grade of the beach higher than one foot in order to maintain lateral access below mean high water.
 - (f) Riprap shall be compact, hard, durable, angular stone, with an approximate unit weight of 165

lbs./cubic foot.

- (g) Riprap shall be placed with an adequate bedding of crushed rock or other suitable filtering material.

14. Applicants with projects subject to the stormwater management provisions herein shall submit the following information:

- (a) New or modified single-family dwelling projects shall submit the following:

- (1) 8.5 x 11 inch site plan depicting the location of all structural stormwater (LID or otherwise) components; and
- (2) Operation & Maintenance Plan consistent with CRMC guidance to ensure long-term maintenance and operation of the stormwater structural practice(s) on the site.

- (b) All other projects

- (1) 8.5 x 11 inch site plan depicting the location of all structural stormwater (LID or otherwise) components;
- (2) Operation & Maintenance Plan that meets the specifications detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*; and
- (3) Following completion of the approved project, a post-construction certification by a Rhode Island registered P.E. and Rhode Island registered Landscape Architect, where required, demonstrating that all stormwater structures, LID components, and requisite planting materials necessary for the function of the stormwater management system were installed in accordance with the approved permit, specifications and approved site plans.

Section 300.7. Construction of Shoreline Protection Facilities

A. Definitions

1. Structural shoreline protection facilities include revetments, bulkheads, seawalls, groins, breakwaters, jetties, and other structures, the purpose or effect of which is to control the erosion of coastal features, and includes any sheet pile walls, concrete or stone walls, or other structures that are located within the 50-foot minimum setback or the erosion setback pursuant to Section 140 and which would extend to a depth below grade to protect land or structures from active or future shoreline erosion.
2. A revetment is a structure built to armor a sloping shoreline face usually composed of one or more layers of stone or concrete riprap. A revetment blankets, and generally conforms to, the contours or a coastal feature.
3. A bulkhead is a wood, steel, or concrete structure built to retain or prevent mass wasting and collapse of a bluff into the sea; it provides limited protection from damage by waves.
4. A seawall is a massive, stand alone structure built of placed or dumped stone, concrete, or steel sheet pile. Concrete seawalls often have curved, or stepped face designed to withstand the direct onslaught of ocean waves.
5. A groin is a structure built of rock, steel, timber, or concrete that extends across a beach into tidal waters and is used to entrap sand in the longshore transport system; groins are generally perpendicular to the shoreline's coastal trend.
6. Breakwaters, either exposed or submerged, usually are structures that protect a shore, harbor, anchorage, or basin by intercepting waves. Sometimes breakwaters are placed parallel to the open shoreline to retard the force of incoming waves to headland and barrier beaches.
7. Jetties are structures, usually of dumped stone in Rhode Island (rubble mound), that retard the migration of a tidal inlet (breachway) in order to provide safer passage for boats in and out of coastal lagoons and estuaries.
8. Riprap consists of stone or concrete blocks that are dumped or placed and installed without mortar.

B. Policies

1. The Council favors non-structural methods for controlling erosion such as stabilization with vegetation and beach nourishment.
2. Riprap revetments are preferred to vertical steel, timber, or concrete seawalls and bulkheads except in ports and marinas. All of these forms of structural shoreline protection are considered to be permanent, not temporary structures.
3. When structural shoreline protection is proposed, the Council shall require that the owner exhaust all reasonable and practical alternatives including, but not limited to, the relocation of the structure and nonstructural shoreline protection methods (see Section 300.7.E.1).
4. Any sheet pile walls, concrete or stone walls, or other structures that are located within the 50-foot minimum setback or the erosion setback pursuant to Section 140 and which would extend to a depth below grade to protect land or structures from active or future shoreline erosion shall be defined as a structural shoreline protection facility. Such facilities shall comply with the policies, prerequisites, prohibitions, and standards herein.

C. Prerequisites

1. Permits for projects with structural shoreline protection facilities located below mean high water must be obtained concurrently from the Army Corps of Engineers and the CRMC. Council and Army Corps requirements are designed to complement one another; applicants should consider the requirements of both agencies when beginning the permit process. In some cases, the Council may require an applicant to obtain applicable Army Corps of Engineers permits prior to applying to the Council. A CRMC Assent is not valid unless the applicant has received all required Army Corps of Engineers approvals. For purposes of federal consistency the CRMC shall require applicants to submit a copy of the completed Army Corps of Engineers application to partially fulfill the federal requirements pursuant to 15 CFR § 930.

D. Prohibitions

1. The Council shall prohibit new structural shoreline protection methods on barriers classified as undeveloped, moderately developed, and developed and in Type 1 waters.
2. The Council shall prohibit the use of limited applications of riprap to protect structures ancillary to the primary structure.
3. Filling on a coastal feature or tidal waters beyond that which is consistent with 300.7.F.1 is prohibited.
4. Structural shoreline protection facilities are prohibited when proposed to be used to regain property lost through historical erosion or storm events.

E. Additional Category B Requirements

1. Applicants for structural shoreline protection measures to control erosion shall, on the basis of sound professional information, demonstrate in writing all of the following:
 - (a) an erosion hazard exists due to natural erosion processes and the proposed structure has a reasonable probability of controlling this erosion problem;
 - (b) nonstructural shoreline protection has not worked in the past or will not work in the future because these methods are not suitable for the present site conditions;
 - (c) there are no practical or reasonable alternatives to the proposed activity such as the relocation of structures that mitigate the need for structural shoreline protection;
 - (d) the proposed structure is not likely to increase erosion in adjacent areas;
 - (e) the proposed structure is an appropriate solution to the erosion problem considering such things as the long term erosion rate in the area, the likely effects of storms and hurricanes, and the stability of the shoreline on either side of the project;
 - (f) describe the long-term maintenance program for the facility including financial commitments to pay for said maintenance; and
 - (g) new breakwaters, jetties, bulkheads, revetments, and seawalls shall be designed and certified by a registered professional engineer.
2. Applicants for breakwaters and jetties in addition to (a) and (b) above shall demonstrate that the proposed structure is necessary to provide protection to a marina, port facility, public mooring area, or public beach area.
3. Applicants for breakwaters and jetties shall also provide an evaluation of the structure's potential for interrupting the longshore movements of sediment. If such an interruption is likely to be significant, the

applicant shall design a sand bypass system or another measure that will assure that the effects on sediment transport shall not cause significant erosion along nearby shores.

4. Repair or reconstruction of all structures that are physically destroyed 50% or more by wind, storm surge, waves or other coastal processes shall require a new Council Assent.

F. Standards

1. All applicable standards for earthwork (Section 300.2) shall be met. The base of the seawall, bulkhead, or revetment must be located as close as practicable to the shoreline feature it is designed to protect; structural shoreline protection facilities shall be placed landward of coastal wetlands.

2. The ends of shoreline protection structures shall be tied into adjacent structures. Where there are no adjacent structures, the new structure shall gradually return to the slope of the feature and be so designed that opportunities for erosion around the back of the structure are minimized.

3. The base of all shoreline protection structures built on unconsolidated sediments shall extend to a depth equivalent to mean low water or to an appropriate depth as determined by the methods detailed in the most recent version of the U.S. Army Corps of Engineers *Shore Protection Manual*. Where practicable, the base shall extend to a depth of 3 feet below the area of disturbance.

4. To promote good drainage behind seawalls and bulkheads, and to minimize the flow of sediment into waterways and avoid the loss of backfill, all backfill must contain less than 10% silt. If sediment in the area is fine-grained, a filtering layer shall be placed behind and/or beneath the structure, consisting of suitably graded stone or rock chips or geotextile filter fabric. Weep holes shall be provided for drainage in retaining walls and bulkheads. The use of grout or concrete within, behind, or over revetments is not permitted.

5. Where feasible, the areas in back of the structure shall be level for a distance equivalent to the height of the structure.

6. The slope of revetments shall not exceed 1:1.

7. Riprap revetments shall be constructed of angular stone with a minimum unit weight of 165 lbs./cubic foot (such as granite). The size of stone shall be dependent upon the site's exposure to wave energy in accordance with the following guidelines.

Fetch (nautical miles)	Weight (lbs.)	Size (cubic yards)
1	400	1/10
2	1,000	1/4
3	2,500	2
4	5,000	1
5 & greater	8,000 & greater	2 & greater

The above assumes a 1:1 wall slope and one layer of placed stone. Equivalent designs using appropriate siting and design methods as described in the most recent version of the U.S. Army Corps of Engineers *Shore Protection Manual* may be substituted in place of the above design guidelines.

8. Applications for structural shoreline protection facilities shall be designed and stamped by a registered professional engineer. However, small revetments in low wave energy environments may be exempted from these design requirements at the discretion of the Executive Director.
9. Concrete used for wall construction along the shore and in tidal waters shall be resistant to the sulfate attack of seawater; Type 2 or Type 5 air-entraining Portland cement or an equivalent shall be used.
10. All construction activities shall minimize any adverse impact to water quality such as disturbance of sediment.

G. Maintenance and Repair

1. To the maximum extent practical there shall be no farther seaward expansion of structural shoreline protection facilities as a result of repair or maintenance activities.
2. Maintenance and repair of existing structural shoreline protection facilities shall be the minimum that is required to maintain the functional viability or structural integrity. In the case of riprap revetments, the addition of limited quantities of riprap armor stone to existing damaged revetments may be allowed as a maintenance activity provided that no impact to coastal resources or lateral access results. All maintenance shall be in accordance with the policies and standards of the Coastal Resources Management Program.
3. All maintenance and repair activities shall minimize any adverse impact to water quality such as disturbance of sediments.
4. All applicable standards for earthwork (Section 300.2.) shall be met for repair or maintenance activities.
5. Maintenance and repair activities do not normally require plans and designs to be certified by a registered professional engineer. However, at the Council's discretion applicants for maintenance or repair activities may be required to submit plans certified by a registered professional engineer. In some cases the Executive Director may waive this requirement if the application is for a minor project.

Section 300.8.

Energy-Related Activities and Structures

A. Definitions

1. Energy-related activities include all operations and structures involved in power generation and petroleum processing, transfer, and storage on a shoreline feature or its contiguous area or within tidal waters.

B. Prerequisites

1. Applicants must demonstrate that all relevant local zoning ordinances, building codes, flood hazard standards, and all state safety codes, fire codes, and environmental requirements have or will be met.

C. Prohibitions

1. Industrial operations and structures are prohibited in Type 1 and 2 waters or on shoreline features and their contiguous areas abutting these waters.

D. Additional Category B Requirements

1. Applicants for activities involving power generation and petroleum processing, storage, and transfer are referred to the 1978 Energy Amendments to the Rhode Island Coastal Resources Management Program for additional detailed standards. The following summary defines the scope of the topics that shall be addressed by applicants for power generating and petroleum processing and storage as they apply to construction, operation, decommissioning, and waste disposal: (a) environmental impacts, (b) social impacts, (c) economic impacts, (d) alternative sites, (e) alternative means to fulfill the need for the facility, (f) demonstration of need, and (g) consistency with state and national energy policies. Shorefront sites shall demonstrate the need for access to navigable waters or cooling and/or process water.

The above requirements for energy facilities do not have to be addressed if the proposal is for an electrical generating facility of 40-megawatt capacity or less, or for a petroleum storage facility of less than 2,400-barrel capacity. Such small-scale facilities shall be considered commercial or residential structures (Section 300.3).

E. Standards

1. See standards given in "Filling, Removing, or Grading" (Section 300.2), as applicable.
2. See standards given in "Residential, Commercial, Industrial, and Public Recreational Structures" (Section 300.3), as applicable.
3. See standards given in "Treatment of Sewage and Stormwater" (Section 300.6), as applicable.

Section 300.9

Dredging and Dredged Materials Disposal

A. Definitions

1. Dredging: the excavation of sediments from beneath tidal and coastal pond waters by mechanical or hydraulic means.

Dredging for navigational purposes is divided into two categories: (a) improvement dredging includes new projects in previously un-dredged areas; and, (b) maintenance dredging includes projects whose purpose is to restore channels and basins to dimensions that support and maintain existing levels of use.

2. Dredged materials disposal: the process of discharging, depositing, dumping, or utilizing the sediments produced by a dredging operation.

B. Policies

1. The Council shall support necessary maintenance dredging activities in Type 2, 3, 4, 5, and 6 waters, provided environmentally sound disposal locations and procedures are identified.

2. Where beneficial re-use options as set forth in RIGL 46-6.1-3 are not practical, the Council favors offshore open-water disposal for large volumes of dredged materials, providing that environmental impacts are minimized.

3. The Council encourages the use of innovative nearshore methods of dredged materials disposal, particularly when small volumes of material must be disposed. These options include but are not limited to the creation of wetlands, shellfish habitat, and beach nourishment in suitable areas.

4. For upland disposal of dredged material resulting from maintenance dredging operations, a Category A Review may be permitted provided the Executive Director determines that the disposal is conducted consistent with the RIDEM's dredging regulations and that the disposal is at an approved upland disposal facility, or at an approved federal disposal facility. Category A reviews may also be permitted when (1) the upland disposal volume is not greater than 10,000 cubic yards (see §300.2); (2) the proposal complies with all applicable local zoning ordinances; (3) applicable soil erosion and sediment controls are employed (see §300.2); and (4) the proposal meets the standards of §110.1.

5. For beach replenishment, a Category A review may be permitted for the placement of clean sands provided the Executive Director determines that the placement of the materials shall be for beach replenishment only, and the proposal meets the standards of Section 110.1 and 300.9 as applicable.

6. The Council utilizes and follows the prescribed processes outlined in the army corps regulations and manuals for both upland and in-water dredged material disposal.

7. The Council may require performance assurance bonds for projects that utilize in-water disposal or transit federal channels with loaded scows.

C. Prerequisites

RIGL 46-6.1-7 specifies that approvals for dredging and dredged material disposal require Council and DEM approval. Further, the Council, as the lead agency for dredging, shall be the initial point of contact for application submittals. The Council and DEM have developed protocols that set out how proposed dredging activities shall be coordinated for review. A pre-application consultation request with the Council and DEM (and other agencies as appropriate) is an element of these protocols and is strongly encouraged for all applicants.

1. Permits for maintenance and improvement dredging and disposal projects for navigational purposes must be obtained from the Army Corps of Engineers as well as the Council. Council and Army Corps requirements are designed to compliment one another; applicants should consider the requirements of both agencies when preparing to begin the permit process and may apply for CRMC and Army Corps permits concurrently.

2. Except for direct federal activities, applicants for dredging or open waters disposal of dredged materials shall be required to obtain a dredging permit (which contains the Section 401 Clean Water Act Water Quality Certification) from the Department of Environmental Management (DEM) before the Council can consider granting approval for the project.

3. All materials to be dredged for either open water disposal or upland disposal must be classified by the Department of Environmental Management (DEM) based upon an approved analysis process prior to the Council acting on an application of either dredging or dredged materials disposal.

4. Any application for open water disposal of dredged materials shall obtain a suitability determination from the Army Corps of Engineers.

5. All applicable requirements of the Freshwater Wetlands Act have or will have been met.

6. Upland disposal of dredged materials must comply with all applicable local zoning ordinances.

7. When disposal is proposed for approved upland facilities, the applicant shall provide a letter of acceptance from that facility, unless the disposal is approved for the central landfill.

8. For dredge volumes greater than 10,000 cubic yards, a pre-application meeting is required.

D. Prohibitions

1. The disposal of dredged materials on or adjacent to coastal wetlands in Type 1 and 2 waters is prohibited unless associated with a Council- approved program of wetland building or rehabilitation. The disposal of dredged materials is also prohibited on coastal wetlands designated for preservation in Type 3, 4, 5, and 6 waters (see Section 210.3).

2. No dredging for navigational purposes is permitted in Type 1 waters. Only maintenance dredging may be permitted in Type 2 waters, except as allowed per section 200.2.C.2.

3. It is prohibited to utilize any mechanical system to remove, relocate, wash or otherwise alter the seabed in any Rhode Island waters, unless authorized through a council assent. It is also prohibited to remove, relocate, wash or otherwise alter marine sediments with any device or deflector without a permit for the specific equipment, method and location. This regulation is not intended to prohibit or otherwise impact commercial fishing or shellfishing activities in Rhode Island waters or to establish additional permitting requirements for such activities.

E. Additional Category B Requirements

1. Applicants for all dredging projects shall provide accurate soundings in the area of the proposed dredging operation.

2. Applicants shall describe any temporary or permanent disturbance to a coastal feature which is required or anticipated in order to gain access for heavy equipment to the dredging or disposal site.

3. When fine-grained sediments are to be removed, the applicant shall employ proper turbidity controls as necessary to control the transport of materials placed in suspension by dredging unless the applicant demonstrates to the Council on the basis of competent professional analysis that such transport will not be significant or will be controlled by other measures.

4. The applicant shall limit dredging and disposal to specific times of the year in order to minimize odors and/or impacts on fish and shellfish unless the applicant demonstrates to the Council on the basis of competent professional analysis that such odors or impacts will not be significant or will be controlled by other measures.

5. Applicants for improvements dredging projects shall describe, on the basis of competent professional analysis, anticipated siltation rates, sediment sources, and anticipated maintenance dredging needs.

6. When dredged materials are removed from a marine to an upland environment for disposal, the applicant shall demonstrate that any release of pollutants present in the materials shall not cause significant environmental degradation.

7. Applicants proposing dredging operations associated with residential boating facilities in Type 2 waters must demonstrate that the purpose is to restore channels and basins to dimensions that support and maintain existing levels of use, and must submit clear and convincing evidence documenting a diminished use of a facility or navigational fairway by natural shoaling or accretion, not merely a need for additional water depth.

F. Standards

All applications submitted to the Council for dredging and disposal shall demonstrate that they have met all applicable sections of the CRMC/DEM dredging application checklist.

1. For dredging:

- (a) Bottoms of dredged areas shall slope downward into the waterway so as to maximize tidal flushing.
- (b) Bottom slopes at the edges of dredged areas shall have a maximum slope of 50 percent.
- (c) Dredging shall be planned so as to avoid undermining adjacent shoreline protection facilities and/or coastal features.
- (d) Shellfish dredged from waters classified SB or lower shall not be made available for human consumption or bait.
- (e) All dredging at any marina shall be bounded to the footprint of the Marina Perimeter Limit (MPL). Side slopes associated with such dredging shall be allowed to extend beyond the MPL and then only when all adjacent structures are not impacted.

2. For dredged materials disposal in open water:

- (a) Dredged materials may not be placed in areas determined by the CRMC to be prime fishing grounds.
- (b) Measures must be employed and described to ensure that all dredged materials will be dumped solely within the confines of an approved site.
- (c) Hydrographic conditions at the approved disposal site must be such that the disposed dredged materials will remain within the disposal area and that re-suspension of bottom sediments will be minimal.
- (d) Following disposal operations involving polluted materials, clean coarse-grained materials may be required be deposited to cap the spoil mound and minimize the release of any potential contaminants to the water column. The cap shall have a minimum thickness of 6 inches.
- (e) The applicant shall provide for an environmental monitoring program designed to detail physical

conditions and biological activity at and near the site for a period of at least one year. The results of such programs shall be made public. This shall not apply to disposal into the CAD cell. However, if the monitoring of the disposal of dredged materials at a site is to be performed by, and/or in conjunction with, a state or federally-sponsored monitoring program, then the applicant shall adhere to the requirements of such state-or-federally-sponsored program.

3. For dredged materials disposal in the creation of wetlands, aquatic habitat, or island:
 - (a) Disposal sites must be in sheltered environments which are approved by the Council for such purposes and are not prone to extensive wave or current energies yet subject to sufficient tidal action to provide adequate flushing.
 - (b) Dredged materials must be pumped or placed into a containment area that will permit sediment consolidation and prevent erosion.
 - (c) The applicant must provide for an environmental monitoring program designed to detail physical conditions and biological activity at and near the site for a period of at least one year. The results of such a program shall be made public.
 - (d) All applicable requirements of Section 300.2 shall be met.
4. For upland disposal:
 - (a) Dewatering of dredged materials shall occur within a properly designed dewatering facility.
 - (b) After dewatering, dredged materials placed on uplands adjacent to tidal waters shall be vegetated or otherwise permanently stabilized. Surface slopes of the disposal area shall be graded so as to prevent surface ponding.
 - (c) Where dredged materials are placed behind a wall or bulkhead: (1) the structure shall be suitably engineered to resist the pressures of the dredged material; (2) the material, including fines, shall be prevented from seeping through the wall or bulkhead by the placement of an adequate filtering device; and (3) all applicable standards listed for shoreline protection facilities (Section 300.7) shall be met.
 - (d) All applicable requirements of Section 300.2 shall be met.
5. Disposal for beach nourishment:
 - (a) The placement of dredged materials on a beach is a preferred disposal alternative, providing that the materials in question are predominantly clean sands possessing grain size and such other characteristics to make them compatible with the naturally occurring beach material.
 - (b) In areas where the processes of littoral drift would result in significant re-entry of dredged sediments into a navigable waterway, dredged materials must be placed on the downdrift side of the inlet.
 - (c) All applicable requirements of Section 300.2 shall be met.

Section 300.10. Filling in Tidal Waters

A. Definition

1. "Filling in Tidal Waters" is the placing of materials from upland sources below the mean high water and includes the utilization of dredged materials to create land in tidal waters for purposes other than those covered by the creation of wetlands and by beach replenishment or nourishment pursuant to Section 300.9. Filling which is determined by the Council to be incidental to activities conducted in accordance with Section 300.7 is not "filling in tidal waters" and is addressed by the Policies, Prerequisites, Prohibitions, Requirements, and Standards contained in Section 300.7.

B. Policies

1. It is the Council's policy to discourage and minimize the filling of coastal waters.
2. In considering the merits of any given proposal to fill tidal waters, the Council shall weigh the public benefit to be served by the proposal against the loss or degradation of the affected public resource(s).
3. Filling may be permitted where necessary for an approved erosion control or bulkheading project, but only when it has been demonstrated that the amount of filling has been minimized in accordance with the requirements of Section 300.7.
4. It is the Council's policy to require a public access plan, in accordance with Section 335, as part of any application for filling of tidal waters. In accordance with Section 120, a variance from this policy may be granted if an applicant can demonstrate that no significant public access impacts will occur as a result of the proposed project.
5. In accordance with GLRI 46-23-6.D(3) and 46-23-16, the Council is authorized to grant, modify, or deny licenses, permits, and easements for the use of coastal resources which are held in trust by the state for all its citizens, and impose fees for private use of these resources. Licenses, permits and easements issued by the Council for the use of public trust resources remain subject to the public trust, convey no title, are valid only with the conditions and stipulations with which they are granted, and imply no guarantee of renewal.

C. Prerequisites

1. Except for federal consistency reviews, applicants for projects requiring filling in tidal waters shall be required to obtain a Section 401 (Clean Water Act) Water Quality Certification or its waiver from the Department of Environmental Management (DEM) before the Council can issue an assent for the project. The application for the Section 401 Water Quality Certification will be forwarded to the DEM when all Council Application forms have been completed.
2. Permits for projects requiring filling in tidal waters must be obtained concurrently from the Army Corps of Engineers and the Council. Council and Army Corps requirements are designed to complement one another; applicants should consider the requirements of both agencies when beginning the permit process. In some cases, the Council may require an applicant to obtain applicable Army Corps of Engineers permits prior to applying to the Council. A CRMC Assent is not valid unless the applicant has received all required Army Corps of Engineers approvals.

D. Prohibitions

1. Filling in Type 1 and 2 waters is prohibited.
2. Regulations governing the filling and other disturbances to wetlands are set forth in Section 210.3.
3. Filling in Type 3, 4, 5, and 6 waters is prohibited unless: (a) the filling is made to accommodate a designated priority use for that water area; (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and (c) the filling is the minimum necessary to support the priority use.

E. Fees

See Section 160.

Section 300.11

Aquaculture

A. Definitions

1. For the purpose of the Coastal Resources Management Council, marine aquaculture is defined as the culture of aquatic species under natural or artificial conditions in the state's waters including but not limited to: fish farming utilizing pens, tanks, or impoundments (which may be land-based); the culture of shellfish on the sea floor in permitted and leased areas, in cages, or suspended from structures in the water; and the culturing of aquatic plants. **NOTE:** land-based aquaculture operations (i.e., above mean high water) are also regulated under Section 300.3 of the RICRMP.
2. For the purpose of the Coastal Resources Management Council freshwater aquaculture is defined as the culture of aquatic species under natural or artificial conditions in freshwater ponds, tanks, raceways or other freshwater impoundments located within the coastal zone or in inland locations throughout the state.
3. Transient or mobile aquaculture gear is defined as cages containing cultured species which are periodically moved about within a specified area so as to reduce user conflicts. This gear is typically in the form of wire cages which are either individually marked with a surface buoy or strung together in trawls with end buoys to identify the location of gear.

B. Policies

1. The CRMC recognizes that commercial aquaculture is a viable means for supplementing the yields of marine fish and shellfish food products, and shall support commercial aquaculture in those locations where it can be accommodated among other uses of Rhode Island waters. The CRMC recognizes that responsible shellfish aquaculture has a net positive effect on the environment, and therefore it is permissible in all water types. As any human activity can have adverse environmental effects, the Council recognizes the possibility of setting scientifically defensible limits on aquaculture leasing in any particular water body. The CRMC also recognizes that in the framework of adaptive management protocols, research into the ecology of coastal waters and our understanding of ecosystem carrying capacities is constantly evolving and improving.
2. The Council may grant aquaculture activities by permit only. The CRMC may grant aquaculture applicants exclusive use of the submerged lands and water column, including the surface of the water, when the Council finds such exclusive use is necessary to the effective conduct of the permitted aquaculture activities. Except to the extent necessary to permit the effective development of the species of animal or plant life being cultivated by the permittee, the public shall be provided with means of reasonable ingress and egress to and from the area subject to an aquaculture lease for traditional water activities such as boating, swimming, and fishing. All plant and animal species listed for culture in an aquaculture lease are the personal property of the permittee.
3. At the discretion of the Executive Director, leaseholders may be required to temporarily remove their aquaculture facilities, which may include all associated gear and cultured species, when said facilities are not being used to conduct research, culture or to harvest an aquatic species of plant or animal for a substantial period of time. The Council may permit inactive aquaculture facilities to remain if it determines that the temporary removal of these facilities would place an undue burden on the leaseholder or would prove detrimental to coastal resources of the state. Report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council.

4. The Executive Director may order the removal of any aquaculture facility that is in an obvious state of disrepair or has been determined to be a navigation or public safety hazard. Report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council.

5. Upon application to renew an existing aquaculture Assent, the Executive Director may administratively renew said Assent for a period not to exceed that period set forth in Title 20 Chapter 10 of the General Laws for each renewable period, provided the applicant is in conformance with the terms and conditions of the Assent, the aquaculture lease, and with the Coastal Resources Management Program (RICRMP) in effect at the time of renewal provided, further, that there are no amendments to the Assent or lease. Report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council.

6. In the event that a CRMC approved aquaculture operation is determined by the Council to not be actively “farmed” for a period of one year, the assent and lease shall be deemed null and void and the site shall revert to the State’s public use upon order by the CRMC. Actively farmed may be defined by the yearly monetary investment in the farm, ex: the purchase of seed and supplies and/or proof of sales.

7. The Council may grant an aquaculture Assent for a period not to exceed that period set forth in Title 20 Chapter 10 of the General Laws.

8. It is the Council’s policy to prohibit private aquaculture activities in not-approved areas as defined by the National Shellfish Sanitation Program that contain significant shellfish stocks potentially available for relay into approved areas for free and common fishery.

(a) This prohibition shall not apply to activities like spat collection, or to the cultivation of scallops, or to private aquaculture operations conducted within the confines of a marina perimeter limit (as set forth in 300.4), or to projects which are designed, with Council approval, to enhance and restore the public resource.

(b) Aquaculture projects other than shellfish aquaculture proposed for not-approved areas may be granted by the Council provided the applicant provides sufficient evidence that no harm to public health or safety will result. In the case of shellfish aquaculture, such activities shall be prohibited unless the applicant provides written statements from the directors of the departments of environmental management and health certifying that the proposed activity is consistent with the requirements of the National Shellfish Sanitation Program.

(c) Where a private shellfish aquaculture applicant expressly releases ownership of any and all shellfish stock existing in a permitted area, the Council may grant a lease in addition to a permit.

C. Prerequisites

1. Prior to issuing a permit for marine aquaculture within tidal waters, the Council shall obtain and give appropriate consideration to written recommendations from the Director or his or her designee of the Department of Environmental Management and the chairman of the Marine Fisheries Council, as required by Chapter 20.10 of the state's General Laws. The director or his or her designee of the Department of Environmental Management shall review the application to determine that the proposed aquaculture activity will not adversely affect (a) marine life adjacent to the proposed area and the waters of the state, and (b) the continued vitality of indigenous fisheries. The chairman of the Marine Fisheries Council shall review the application to determine that it is consistent with competing uses involved with the exploitation of marine fisheries.

2. An Aquaculture License issued by the DEM for the possession, importation, and transportation of

marine shellfish species used in any aquaculture operation shall be obtained by the applicant from the director or his or her designee of the Department of Environmental Management. The DEM Aquaculture License may be processed concurrently, but must be obtained by the applicant prior to the issuance of a CRMC Assent.

3. Prior to submitting a formal Category B application to CRMC for aquaculture activities within tidal waters, applicants must first submit a Preliminary Determination application for the proposed project in accordance with existing CRMC procedures. A formal Category B application may be submitted only after the completed Preliminary Determination report has been issued by CRMC. The applicant shall prepare the Category B application in accordance with all recommendations of the Preliminary Determination report.
 4. Applicants for aquaculture operations within tidal waters must submit with their application(s) all required information as specified in the most recent version of the CRMC aquaculture checklist.
 5. In those cases where alterations to freshwater wetlands may occur, applicants for freshwater and land-based aquaculture operations must first obtain a permit from the DEM Division of Agriculture or DEM Freshwater Wetlands prior to applying with the Council.
 6. Applicants for freshwater and land-based aquaculture structures and/or improvements must obtain local building official approval and zoning approval, where necessary, prior to submitting an application to the CRMC.
 7. Applicants for aquaculture operations which result in discharges to waters of the state are required to obtain a Rhode Island Pollution Discharge Elimination System (RIPDES) permit issued by the department of environmental management. Said permit must be obtained by the applicant prior to any aquaculture facility discharges to waters of the state.
 8. Applicants for aquaculture operations conducted at marinas using technologies such as an upweller unit may be reviewed as a Category A activity provided that the operation is conducted within a Council-approved marina perimeter, and that RIDEM has issued a Special Permit for Aquaculture for such an activity. Further, at the time of application, the applicant must provide proof that such seed product - prior to exceeding the size of the RIDEM seed definition - will be transferred to: a permitted aquaculture facility operating in approved waters; a scientific or educational institution; or, a government agency.
 9. Upweller units at CRMC permitted residential docks, piers and floats may be reviewed as a Category A activity provided that: 1) only current council-approved aquaculture lease holders may propose to utilize upweller units at residential docks; 2) the inclusion of an upweller is incidental to the permitted use of the dock, pier, or float, and the original use of the structure not be inhibited by the inclusion of an upweller; 3) all shellfish from the addition of an upweller belong to a licensed CRMC aquaculture leaseholder and that the production from the upweller will go to the owners lease site; 4) all applicable Rhode Island Department of Environmental Management and Rhode Island Department of Health Regulations are followed; 5) all local and national codes regarding addition of electrical power to docks and associated structures will be adhered to; and, 6) adequate depth of water at the upweller addition is maintained.
- A CRMC assent will be issued for a period of up to five (5) years but in no case longer than the length of time remaining on the approved aquaculture leaseholder's permit. Addition of upwellers to existing residential docks, piers, or floats in CRMC-designated Type 1 waters is prohibited.
10. Applicants who propose to introduce non-indigenous species into a CRMC-approved aquaculture facility or lease are required to design a protocol and submit it for review and approval by the Bio-Security Board prior to issuance of an assent. This review can occur concurrently with the aquaculture application process.

11. All freshwater aquaculture permits will be reviewed and approved by the CRMC Biosecurity Board prior to issuance of an assent. This review can occur concurrently with the aquaculture application process.

D. Additional Category B Requirements

1. Applicants proposing to undertake any aquaculture project shall (a) describe the location and size of the area proposed; (b) identify the species to be managed or cultivated within the permitted area and over which the applicant shall have exclusive right; (c) describe the method or manner of management or cultivation to be utilized, including whether the activities proposed are experimental, commercial, or for personal use; (d) provide such other information as may be necessary for the Council to determine: (1) the compatibility of the proposal with other existing and potential uses of the area and areas contiguous to it, including navigation, recreation, and fisheries; (2) the degree of exclusivity required for aquacultural activities on the proposed site; (3) the safety and security of equipment, including appropriate marking of the equipment and/or lease area; (4) the projected per unit area yield of harvestable product; (5) the cumulative impact of a particular aquaculture proposal in an area, in addition to other aquaculture operations already in place; (6) the capability of the applicant to carry out the proposed activities; and (7) the impact of the proposed activities on the scenic qualities of the area.

E. Prohibitions

1. Fish pen aquaculture operations are prohibited in all coastal ponds and nutrient sensitive shallow embayments and coves.
2. Private aquaculture leases are prohibited in uncertified waters (i.e., restricted areas as defined by the National Shellfish Sanitation Program), which contain significant shellfish stocks available for relay into certified public waters for the free and common fishery.
3. Upwellers at existing residential docks, piers, or floats in Type 1 waters are prohibited.
4. Introduction of non-indigenous species is prohibited unless protocols are in place to ensure that no accidental releases into the state's waters may occur. These protocols must be submitted by the applicant for review and approval by the CRMC Bio-Security Board before any permit is issued. Any proposed modifications to the permitted operation will be reviewed by the Bio-Security Board before an assent modification can be issued. The issuance of a permit under these stipulations can be revoked if a release of non-indigenous species takes place during the term of the assent.
5. The harvest of wild shellfish naturally occurring in a CRMC permitted lease shall be prohibited. All wild shellfish within a lease area will remain the property of the State of Rhode Island and remain in place for the benefit of the public resource. This resource is not to be harvested by any person for commercial or recreational purposes. Any incidental catch by the lease holder within an aquaculture lease shall be returned immediately to the same waters.
6. In the coastal salt ponds the area occupied by aquaculture shall not exceed five percent (5%) of the total open water surface area of the coastal pond below MLW.

F. Standards

1. Marine Aquaculture within Tidal Waters

a. In the event of revocation or termination of an Assent by order of the Council or expiration of any lease or Assent, the lessee or Assent holder is responsible for restoring the area to pre-existing conditions within ninety (90) days from the date of permit revocation, termination, or expiration. This shall include the removal of all structures, rafts, floats, markers, buoys, anchors, and other equipment brought to the site. Failure to comply with the Council's order to restore the site may result in the forfeiture of the assent bond posted by the lessee.

b. Any person who maliciously and willfully destroys, vandalizes, or otherwise disrupts aquaculture activities permitted by the Council shall be in violation of an order of the Council and liable to all fines and penalties under law.

c. All Permittees shall mark off the areas under permit by appropriate buoys or stakes, as determined by the CRMC, so as not to interfere unnecessarily with navigation and other traditional uses of the water surface. The requirement for the agreed upon marking will be found in the lease requirements detailed in the assent. All authorized limitations upon the use by the public of areas subject to the permit shall be posted by the Permittee.

d. The Council may require the leaseholder for an aquaculture facility to post a performance bond in order to ensure the cleanup and removal of said facility upon either the termination or expiration of the lease.

e. The Executive Director may approve the transfer of a lease from the lessee to another party provided the aquaculture operation remains the same, including size, species, gear, and methods of culturing. The full Council must approve any transfers that involve a deviation from the existing assented aquaculture operation.

f. Experimental permits. (1) The Executive Director may issue an experimental aquaculture permit for operations which are expressly for the purpose of developing and testing new gear or techniques for aquaculture production. Applicants may be approved for three separate sites, with up to an area of one-thousand (1,000) square feet for each site. Experimental sites shall not be within 500 feet of one another. Areas in excess of this may be approved by the full Council. Experimental aquaculture Assents shall be valid for a period not to exceed three (3) years. A lease may be required and the sale of any aquaculture product is not allowed. Report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council. (2) Experimental aquaculture operations wholly contained within the confines of a council-approved marina perimeter area excluded from the 500 foot separation standard, as contained above, any may maintain a total of 3,000 square feet in any configuration for such operations.

g. Commercial viability permit. (1) The Executive Director may issue a commercial viability aquaculture permit for operations which are expressly for the purpose of determining if a particular site is suitable for commercial aquaculture. The applicant may have one site, limited to a thousand (1000) square feet. Commercial viability permits shall be valid for a period not to exceed three (3) years. Permits for a commercial viability shall be subject to a two (2) step process: 1) Issuance of a one-time administrative permit for the period of eighteen (18) months; followed by a one-time council-approved permit for an additional eighteen (18) months. A lease may be required. Report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council. (2) Any continuation of the operation by the applicant beyond this permit length shall require a separate application which will be considered and reviewed by the Council as a Category B application and is subject to all applicable aquaculture policies and regulations. (3) The permittee may, on a one time basis, sell those products approved within the permit. Upon termination of the operation, or at the end of the three (3) year permit period, whichever comes first, the permittee must terminate the operation. (4) The permittee must show that, in case of successful trial, there is potential area to expand to a commercial aquaculture lease in the same

area that the commercial viability permit was granted. The Executive Director may require the permittee to post a performance bond in order to ensure the cleanup and removal of said facility. Detailed economic reports shall be required for all commercial viability Permittees.

h. Education/research permit. The Executive Director may issue a education/research aquaculture permit for operations which expressly for the purpose of using aquaculture for education or research. A lease may be required. Applicants may be approved for three separate sites, with up to an area of one-thousand (1,000) square feet for each site. Education/research sites shall not be within 500 feet of one another. Areas in excess of this may only be approved by the full Council. Educational/research aquaculture assents shall be valid for a period not to exceed three (3) years. A lease may be required and sale of any aquacultured product is not allowed, report of such action by the Executive Director shall be made in writing to the full Council at the next regularly scheduled meeting of the Council. The Executive Director may grant extensions to these permits. Each extension shall not exceed three (3) years. Educational/research aquaculture operations wholly contained within the confines of a council-approved marina perimeter are excluded from the 500-foot separation standard, as contained above, and may maintain a total of 3,000 square feet in any configuration for such operations.

i. All transient aquaculture gear shall be operated within defined areas as established by the tidal water aquaculture management plan. Transient gear lease fees shall be based on the minimum area necessary to operate the proposed number of cages.

j. Aquaculture operations shall be located at sites and operated in such a manner as to not obstruct public access to and from tidal waters.

k. Any new lease in a coastal salt pond shall be limited in size as follows:

- (1) maximum three (3) acres for traditional rack and bag or cage methods; or
- (2) maximum six (6) acres for bottom planting

l. Leaseholder may not apply for any lease expansion until such time leaseholder can demonstrate to the CRMC a need for additional area.

m. Recreational Permits. The Executive Director may grant permits for recreational culture of shellfish by littoral landowners as follows:

- (1) Recreational permits shall be limited to one culture enclosure limited to a volume of 48 cubic feet; and
- (2) This cage shall be hung from an existing CRMC approved dock in a manner that it will not interfere with traditional navigation; and
- (3) Recreational permit holders will follow all existing seed importation regulations; and
- (4) Recreational permit holders will be required to complete a CRMC approved educational program.
- (5) Recreational permits will be exempt from prohibition #6.
- (6) All gear used under an education permit will be legibly marked with the letters "CRMC" and the CRMC permit number.
- (7) Recreational permits will be only in areas of approved waters as defined by the National Shellfish Sanitation Program.

n. The maximum area occupied by aquaculture leases in the coastal salt ponds is five percent (5%) of the

total open water surface area of the salt pond below MLW. This limit is established based upon the current knowledge of ecological carrying capacity models. See: Salt Pond SAMP Section 100.B.1 and Figure 1-1 for salt pond areas.

2. Freshwater Aquaculture

a. The Council shall require a permit for all freshwater and land-based aquaculture operations located within the coastal zone or in inland locations throughout the state.

b. Permits for land-based aquaculture operations shall be granted by the CRMC for a term not to exceed 50 years.

c. When required, all species utilized for culture within land-based aquaculture operations must be approved by the DEM director or his or her designee. The aforementioned approval must be obtained prior to the Council issuing its assent, however, it may be concurrently processed with the Council's review.

G. Guidelines for Marine Aquaculture within Tidal Waters

In addition to the policies, prerequisites, additional requirements for Category B assents, prohibitions and standards above, the Council also suggests that applicants take the following items into consideration for any proposed aquaculture application.

1. Marine aquaculture lease size in Narragansett Bay.

a. For the area known as upper Narragansett Bay, defined as the area north of a line across the bay at the latitude of 41 degrees 35 minutes, proposed aquaculture farms should be limited to three acres.

b. Three (3) acre leases will be granted by giving an initial two (2) acre lease. Subsequently the third acre will be granted when the Permittee shows that the initial two (2) acre lease is being utilized.

c. These guidelines may be adjusted for variations in water depth, species cultured, culture method, etc.

2. Guidelines for Marine Aquaculture in the Salt Ponds.

a. Aquaculture leases will be discouraged in historically fished areas and encouraged in areas that have not been historically utilized in the wild harvest fishery.

b. Buffer zones between aquaculture leases may be required when considering new leases.

Section 300.12. Coastal Wetland Mitigation

A. Definitions

1. Alterations to coastal wetlands are defined to include, but shall not be limited to: filling, removing or grading (as defined in Section 300.2.A.); dredging and dredged materials disposal (as defined in Section 300.9.A.); and any significant cutting or removal of vegetation; and excavation, draining, damming and/or diverting of hydrological flows in a coastal wetland. Further-more, any activity, including the aforementioned, taking place in an area adjacent to a coastal wetland which impacts the coastal wetland, shall be considered an alteration to coastal wetlands.
2. Activities which shall not be considered alterations include, but shall not be limited to; minor disturbances associated with the approved construction or repair of shoreline protection facilities in accordance with Section 300.7, minor disturbances associated with approved residential docks and walkways constructed in accordance with standards set forth in Section 300.4, insignificant or minor cutting or pruning of vegetation in accordance with a Council-approved management or restoration plan; and approved mosquito population control programs.
3. For the purposes of this section, mitigation is defined as avoidance and minimization of impacts and compensation for unavoidable losses by creating or restoring coastal wetlands. Mitigation projects are those projects undertaken to compensate for unavoidable losses after impacts associated with a proposed activity have been avoided and minimized to the maximum extent practicable. The Council recognizes the restoration of historic wetlands and the creation of new wetlands as the only acceptable means of compensating for unavoidable losses of coastal wetlands.
4. Wetland restoration is defined as the re-establishment of a wetland (on the site of an historical wetland) which has been degraded to such an extent that the site performs little or none of its original wetland functions.
5. Wetland creation is defined as the construction of a new coastal wetland where one had not previously existed.
6. Mosquito ditching is defined as the maintenance and construction of ditches in coastal wetlands in order to enhance tidal flushing and thereby reduce and control mosquito breeding sites.
7. Open Marsh Water Management is defined as the maintenance and construction of reservoirs and connectors in order to enhance the tidal food web and thereby reduce and control mosquito breeding sites.

B. Policies

1. In cases where the Council determines that a coastal wetland may be altered (see Section 210.3.C), or grants a special exception to a prohibition listed in Section 300.12.D, the Council shall require the mitigation of all impacts to the coastal wetland. Permanently lost or significantly altered wetlands shall be replaced through the restoration of an historical wetland or the creation of a new wetland at a site approved by the Council.
2. The Council shall not grant any variance to the policies, standards, and prerequisites set forth in this section.
3. Pursuant to the Council's "no net loss" policy, the goal and minimum requirements of wetland mitigation projects shall be the replacement of permanently lost or significantly altered wetlands with wetlands of equal or greater area and ecological value. Mitigation projects shall be carried out in accordance with the standards set forth in section 300.12.E.

4. Wetlands created or restored for the purposes of replacing permanently lost or altered coastal wetlands shall be considered wetlands as defined in the RICRMP and subject to the policies contained in Section 210.3 (Coastal Wetlands), Section 140. (Setbacks) and Section 150. (Buffer Zones).

5. Activities listed in Section 300.12.A.2. shall be exempt from mitigation requirements. In addition, wetlands created for the purposes of stormwater management, erosion control, or waste management, in accordance with Section 300.6, shall not be subject to mitigation requirements.

6. Applicants proposing to alter coastal wetlands shall submit the application and the proposed mitigation plan concurrently. In cases where an applicant is proposing an alteration to coastal wetlands prohibited under Section 300.12.D, the applicant shall be required to first meet the burdens of proof contained in Section 130 and obtain a Special Exception. If the applicant obtains a Special Exception, or a Special Exception is not necessary, then the Council shall consider the merits of the proposed alteration.

The Council shall not consider the mitigation plan in determining whether an assent shall be granted for the alteration of a coastal wetland, but shall require mitigation as a condition of the assent. If the Council approves the proposed alteration to a coastal wetland, then the applicant shall obtain the Council's approval of the mitigation plan prior to any alteration of the coastal wetland. The issuance of the assent to alter coastal wetlands subject to mitigation requirements will be based, in part, upon adequate assurance that required mitigation is feasible and will occur.

7. To the maximum extent practicable, mitigation projects shall be carried out prior to, or concurrent with, the approved alteration of the coastal wetland.

8. To the maximum extent practicable, mitigation projects shall be carried out on-site. Where no on-site alternative exists, the Council may consider off-site mitigation within a hydrologically connected area. In circumstances where an overall benefit to the state is demonstrated and no on-site alternative exists, the Council may approve mitigation projects outside the watershed in which the impact, due to the alteration of a coastal wetland, will occur.

9. In cases where the alteration is temporary, the disturbed wetland shall be restored, to the satisfaction of the Council, immediately following the permitted activity.

10. In no case shall monetary compensation be considered as an acceptable form of mitigation.

11. The Council may consider proposals for joint mitigation projects, advanced mitigation projects, and other innovative wetland mitigation approaches, such as mitigation banks, on a case-by-case basis.

12. The Council recognizes that successful mitigation projects depend on a number of variables including the type of wetland restored or created. Accordingly, replacement ratios contained in section 300.12.F shall be considered minimum requirements.

13. Recognizing that restored and created wetlands require a period of time to become established as functional coastal wetlands, the Council may require the applicant to post a bond to ensure compliance with the mitigation plan and other Council stipulations.

14. Any violation of the approved mitigation plan shall constitute a violation of the assent to alter the existing coastal wetland.

15. The Council recognizes the nuisance caused by large breeding populations of mosquitoes in portions of some coastal wetlands. The Council recognizes that the problem can be effectively controlled by good wetland management practices that include open marsh water management, ditch maintenance and, in some cases, the limited use of pesticides.

C. Prerequisites

1. Applicants proposing any alteration to coastal wetlands prohibited in Section 300.12.D shall be required to obtain a Special Exception (Section 130) from the Council.
2. Applicants proposing alterations to coastal wetlands are required to obtain permits from the Army Corps of Engineers and applicable permits from the Department of Environmental Management. In some cases, mitigation projects will require additional permits from the Army Corps of Engineers and the Department of Environmental Management. Applicants shall consult with these agencies for a determination of the need for additional permits and obtain any required permits prior to undertaking any mitigation activities.
3. Mosquito control programs in any coastal wetland area will be considered only when authorization from the DEM Division of Fish and Wildlife, the R.I. Mosquito Abatement Board, and the local municipality has been obtained. Further, applicants should concurrently obtain a permit from the Army Corps of Engineers. However, in some cases the Council may require the applicant to first obtain an Army Corps of Engineers permit.

D. Prohibitions

1. All alterations to coastal wetlands abutting Type 1 waters are prohibited except for minimal alterations required for the construction or repair of an approved or pre-existing structural shoreline protection facility (see Section 300.7) and alterations resulting from approved mosquito population control programs.
2. Alterations to coastal wetlands abutting Type 2 waters and coastal wetlands designated for preservation adjacent to Types 3,4,5 and 6 waters are prohibited except for minor disturbances associated (a) residential docks approved pursuant to the standards set forth in Section 300.4, (b) approved construction or repair of shoreline protection facilities, and (c) approved mosquito population control programs.
3. Alterations to coastal wetlands which are adjacent to Types 3, 4, 5 and 6 waters and which are not designated for preservation are prohibited unless: (a) the alteration is made to accommodate a designated priority use for that water area, (b) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable, and (c) only the minimum alteration necessary to support the priority use is made.
4. The practice of applying broad spectrum persistent pesticides on any coastal wetland area is prohibited.
5. Future development on any mitigation site is prohibited. All alterations to mitigation sites other than those required to maintain, or enhance the restored or created coastal wetland are prohibited.

E. Additional Category B Requirements

1. Applicants shall demonstrate to the Council's satisfaction that (a) the proposed alteration will accommodate a priority use, as determined by the adjacent water type, (b) the alternative selected is the most reasonable for supporting that priority use, and (c) the proposed alteration is the minimum necessary to support that alteration.
2. Any mitigation plan submitted pursuant to this section shall include, but not be limited to, the following:
 - (a) A site plan accurately depicting wetlands which will be altered, the proposed mitigation site, existing buffer zones and proposed buffer zones;

- (b) The size, in terms of surface area, of wetlands to be altered and of the proposed mitigation site. Surface areas shall not include buffer zones; however, alterations to existing buffer zones shall be described;
- (c) A description of existing elevations, soil types, flora species, vegetative densities and habitats in the wetland to be altered and for the proposed mitigation site;
- (d) A description of the hydrology of the existing wetland site and proposed mitigation site including ground water levels and, where applicable, tidal and salinity ranges of the site and of adjacent inundating waters;
- (e) A description of any excavation, grading, filling, etc. to be conducted as part of the mitigation plan;
- (f) A description of species to be planted or seeded, spacing of plantings and/or the density of seeding, the source of vegetation to be planted, and the source of any organic soils to be introduced at the mitigation site;
- (g) A schedule for implementation of the mitigation plan;
- (h) Success criteria, which shall include benchmark dates and minimum survivability rates for plantings/seedings;
- (i) A monitoring program; and,
- (j) Evidence of financial security.

F. Standards

1. For alterations to Coastal Wetlands:

- (a) Altered coastal wetlands shall be replaced by wetlands of a similar type (as defined in Section 210.3.A) which provide an ecological value equal to or greater than that of the altered wetland.
- (b) The following ratios of replacement coastal wetland to permanently altered or lost coastal wetland shall be considered minimum compensation requirements for mitigation projects:
 - (i) 2:1, area of coastal wetland restored: area permanently altered or lost.
 - (ii) 2:1, area of coastal wetland created: area permanently lost or altered.

Specific replacement requirements shall be determined on a case-by-case basis, taking into account such factors as size, type and ecological value of the existing coastal wetland, and the probability of achieving fully functional replacement at the proposed mitigation site. In no case shall the Council consider mitigation projects which do not meet these minimum compensation requirements.

- (c) Restored and created coastal wetlands shall be subject to buffer zone and setback requirements.

2. For mosquito population control

- (a) Alterations to coastal wetlands undertaken as part of a mosquito control program shall be minimal and shall utilize open marsh water management techniques in accordance with the most recent version of *Manual of Methods for Open Marsh Water Management in Rhode Island (RIDEM)*.

(b) Wherever possible, marsh sediments excavated as part of an approved mosquito population control program shall be placed at the terminal end of a pre-existing mosquito ditch identified for abandonment. In cases where such a pre-existing mosquito ditch does not exist or is not a feasible sediment disposal site, marsh sediments shall be disposed of at a suitable upland location.

(c) Ditches shall be no more than 24 inches wide and not less one foot, or more than 3 feet, deep.

Section 300.13. Public Roadways, Bridges, Parking Lots, Railroad Lines and Airports

A. Definition

1. For the purposes of this program, public roadways shall be defined as all roadways other than private driveways used to access either public or private roads.
2. The requirements of this section apply to all new roadways, highways, bridges, parking lots, railroad lines, and airports. Alterations and improvements to roadways, highways, bridges, parking lots, railroad lines, and airports are subject to the erosion control requirements contained in this section and Section 300.3. Alterations and improvements to roadways, highways, bridges, parking lots, railroad lines, and airports that result in new stormwater discharges or increase storm-water discharge volumes beyond pre-development levels are subject to the stormwater management requirements contained in Section 300.6 (excluded from these requirements are projects consisting only of pavement resurfacing, minor roadway repairs, or emergency drainage repairs).

B. Prohibitions

1. The construction of new public transportation facilities in tidal waters and on coastal features is prohibited with the following exceptions: (a) construction on developed barrier beaches may be permitted, subject to the requirements of Section 210.2; (b) unpaved vehicle trails and parking areas may be permitted on undeveloped barrier beaches (Section 210.2); and (c) construction may be permitted on manmade shorelines subject to the requirements of Section 210.6.

C. Policies

1. All roadways, highways, parking lots, railroads lines, and airports shall be planned, sited, and designed to: (i) protect areas that provide important water quality benefits or are particularly susceptible to erosion and sediment loss; (ii) limit land disturbances such as clearing and grading and cut and fill to reduce erosion and sediment loss; (iii) limit disturbances of natural drainage features and vegetation; and (iv) limit the increase of impervious surface areas, except where necessary.
2. All bridge structures shall be sited, designed, and maintained so that sensitive coastal habitat areas such as coastal wetlands and areas providing important water quality benefits are protected from adverse effects.

D. Standards

1. See standards given in "Filling, Removing, or Grading of Shoreline Features" (Section 300.2).
2. Permeable materials shall be utilized, where practicable, to surface roadways and parking lots on shoreline features adjacent to Type 1, 2, and 3 waters.
3. Applicants shall reduce erosion and, to the maximum extent practicable, retain sediment on-site during and after construction. Applicants shall prepare and implement an erosion and sediment control plan in accordance with all of the policies and standards contained in Section 300.2.
4. Applicants shall prepare and implement a stormwater management plan in accordance with the policies and standards contained in Section 300.6.
5. See the standards contained in "Treatment of Sewage and Stormwater (Section 300.6)".

Section 300.14

Maintenance of Structures

A. Definition

1. Maintenance of structures includes rebuilding, reconstructing, repairing or re-establishing to previously approved conditions and dimensions a damaged or deteriorated structure or facility. Maintenance includes only those activities that do not significantly alter the assented design, purpose and size of the structure. Maintenance provisions for marina in-water facilities and residential boating facilities are found at Section 300.4.E.

B. Policies

1. Persons proposing to maintain dredged channels and mooring areas (Section 300.9) and mosquito control ditches in coastal wetlands (Section 300.12) are in all cases required to obtain a new Council Assent.

2. Maintenance of structures and facilities for which a Council Assent has been issued is permitted upon obtaining a Certification of Maintenance from the Executive Director of the CRMC. This Certification shall establish that all applicable standards for the construction and operation of the permitted structure or facility, and any stipulations that were conditioned by the Council's Assent have been met, and are continued. Further, the Certification of Maintenance may contain additional measures to minimize the environmental impact of the activity, to promote the restoration of coastal resources, or to otherwise further the objectives and goals of this program, as may be required by staff recommendations to the Executive Director, consistent with the standards of the RICRMP.

3. Persons proposing to maintain or repair structural shoreline protection facilities shall do so in a manner consistent with Section 300.7.G.

4. Persons proposing to maintain previously assented structures (other than piers and docks associated with marinas) which have physically been destroyed 50 percent or more by storms, waves, or other natural coastal processes shall, upon the determination of the Executive Director, be required to obtain a new Council Assent. Such activities requiring a new Council Assent shall be reviewed according to the most current applicable programmatic requirements of the Coastal Resources Management Program, its Special Area Management Plans, and/or any other appropriate CRMC-approved management plans.

5. Many structures under Council jurisdiction predate the Council and were not permitted by Council Assent when originally constructed. Persons proposing maintenance or repair activities on such structures shall be required to obtain a Certification of Maintenance, meet relevant standards of this program, or obtain a Council Assent, as determined by the Council's Executive Director.

(a) Persons proposing to (i) demolish structures, (ii) repair structures which have been physically destroyed 50 percent or more as a result of storm induced flooding, wave, or wind damage, and (iii) repair structures which have been destroyed 50 percent or more by fire shall be required to submit an application and meet the current programmatic requirements.

(b) Persons proposing to maintain any structure, including utilities, in or adjacent to Type 4, 5 or 6 waters that predate the Council's jurisdiction (circa 1971) may be required to perform a fitness for purpose analysis and certification. Applicants are referred to the Council's program document *Guidelines for Fitness of Purpose Investigations and Certifications* for direction.

(c) Yacht Clubs and other boating facilities that are listed on the National Register of Historic Places that are destroyed may apply for a maintenance Assent before the Council (reconstruction) provided that the exact historical footprint of the structure is utilized and a similar architectural

edifice is utilized on the building. All non-façade elements shall be in compliance with the latest edition of the Rhode Island State Building Code.

6. All activities, except those noted in Section B.5, for which a Certification of Maintenance is requested, shall have a valid Council Assent.

7. It is the Council's intent to allow for the continued maintenance and viability of marina operations that exist in and adjacent to the coastal waters of the state. In Type 3, 4, 5 and 6 Waters maintenance dredging, dock reconfiguration, activities such as travel lift operations and other best available technologies, and other ancillary activities necessary to maintain the operational viability of the facility should be expected to occur. The Council has detailed this policy in its handout entitled "Marina Certification Program." (Pre-existing marinas in Type 2 Waters are covered at 200.2.) The Marina Certification Program allows for certain maintenance activities to occur at marina facilities with approved marina perimeters. In order to be eligible for this policy, applications for marina certification must be submitted to the CRMC before October 1, 1994.

8. Minor repairs to boating facilities registered in accordance with the Council's Dock Registration Program and authorized by the Council are permitted without further review provided that the repairs will not alter the previously authorized design, capacity, purpose, or use of the facility. Minor repairs shall only include the repair or replacement of: decking (does not include stringers); handrails; ladders; and, electrical wiring and fixtures.

9. See Table 4a for maintenance provisions for dwelling additions and rebuilds within the 50 foot setback zone on developed, moderately developed, and undeveloped barriers.

C. Prerequisites

1. All applicants for a Certification of Maintenance shall submit for review a valid Council Assent, dimension and/or site plans, photographs, or other information as required to make a proper determination of the nature of the request.

Table 4a. Dwelling Rebuilds and Additions for Maintenance Activities under Section 300.14

Section 210.7 (Dunes): Existing Structures			
DEVELOPED BARRIERS			MODERATELY DEVELOPED and UNDEVELOPED BARRIERS*
All Structural Alterations other than Maintenance will be Required to: Move Beyond the 50 foot Setback Area and Meet RI State Building Code Requirements			
Structural Alteration	Within 50 foot setback	Landward of 50 foot setback	
Cantilever Decks	Allowed: Maximum 25 sq.ft. at a minimum of 8 feet above grade (in 50 foot setback area only)	Allowed	Prohibited*
Decks on Roofs	Allowed: provided maximum 100 sq. ft. and within existing footprint of roof (no new overhang)	Allowed	Prohibited*
Roof Line Changes	Allowed: provided no new rooms are created; no new livable space is created; no additional stories are added; does not result in a change to the existing footprint	Allowed	Prohibited*
If Foundation is NOT FEMA Compliant and:			
1. Rebuild In-kind	Prohibited	Allowed provided RI State Building Code and all other RICRMP requirements are met	Prohibited*
2. Other	Prohibited		Prohibited
If Foundation IS FEMA Compliant and:			
1. Rebuild In-kind	Allowed (as Maintenance ¹)	Allowed provided RI State Building Code and all other RICRMP requirements are met.	Allowed*
2. Add 2 nd Floor	Prohibited		Prohibited
3. Demolition and Add 2 nd Floor	Prohibited		Prohibited
4. Other	Prohibited		Prohibited

*On Moderately Developed and Undeveloped Barriers, only in-kind maintenance is allowed. If a lot can support it, the structure may be moved back and elevated in accordance with RI State Building Code requirements. However, in-kind rebuild is still only allowance.

These are for typical maintenance activity reviews, however, a variance may be required if erosion setbacks are farther landward than the 50-foot dune setback. In unusual circumstances, the Executive Director may invoke the

maintenance provision allowances of Section 300.14. This table is for residential structures which are intact and functional at the time of application. It shall not be applicable for structures which have been destroyed 50% or more by coastal storms. Structures which have been destroyed 50% or more by coastal storms will be processed as new applications under the appropriate sections of the RICRMP and applicable SAMPs. Relief from this table requires a Special Exception. Where an activity is indicated as “allowed” it must also meet all other applicable RICRMP requirements.

¹ If structure is within the 50 foot setback area, and cannot relocate beyond 50 foot setback area, application will be determined to be a Maintenance activity and the structure will be allowed to be rebuilt in-kind provided it meets current RI State Building Code and all other applicable RICRMP requirements.

Section 300.15.
Municipal Harbor Regulations

A. Definitions

1. Municipal harbor rules, regulations and programs include all rules, regulations, programs or management functions exercised by a municipality that apply to the use of tidal waters adjacent to a municipality.

B. Additional Category B Requirements

1. All municipalities proposing to adopt harbor rules, regulations, or programs shall apply to the Council for a determination of consistency with the Coastal Resources Management Program. Municipalities are referred to the Guidelines for the Development of Municipal Harbor Management Plans for additional detailed standards in establishing harbor rules, regulations or programs.
2. When a city or town enacts a police ordinance under R.I.G.L § 46-4-2, it shall not be required to request a determination of consistency with the Coastal Resources Management Program unless such by-law or ordinance affects the planning, regulation, or coordinating functions of the Council.
3. The Executive Director is authorized to approve, administratively, municipal harbor regulations and ordinances for an interim period of one year, provided:
 - (a) The municipality submits an application for review and approval, by the Executive Director, such that present conditions of the harbor and the uses made of it can be examined;
 - (b) In the meantime the municipality undertakes and prepares a comprehensive harbor management plan, in conformance with the policies and requirements of the CRMP, as amended; and
 - (c) Until such time as a comprehensive harbor plan is prepared, all activities regulated throughout the CRMP, or which take below the mean high water mark, must come before the CRMC for review and approval, in accordance with established procedures.

Section 300.16

Boat Lift and Float Lift Systems

A. Definitions

1. Boat and float lift systems are accessory structures to residential boating facilities that raise either a boat or float out of the water to facilitate safety and/or maintenance.
2. Boat lifts are designed to lift a vessel out of the water. Generally, a cradle or strap supports the vessel while it is being lifted by a pulley-type lift system. Overhead arms or crane-like systems may also be used to lift vessels out of the water.
3. Float lifts are designed to lift a float out of the water. Generally, a cradle or cables support the float while it is being lifted by a pulley-type lift system.

B. Findings

1. Boat and float lifts can result in the elimination or reduction in the growth of marine organism by lifting either the boat or float out of water. However, because each are above the water, maintenance to the vessel or float is more readily accessible and increases the probability of paint, solvents and petroleum products entering the water.
2. Boat and float lifts can protect vessels and floats from low to moderate storms, tidal surges, wakes, wind and ice damage. In areas of high fetch, there is slight improvement to the safety of a vessel or float for damage from storm, wind and wave action. However, no practical amount of height above the water can ensure complete safety to the boat or float as storm surge and high winds can engulf or throw a boat and/or a float off of its lift.
3. Some boat lifts aid in the boarding of a vessel.
4. The Council states in § 330 that “...every effort should be made to safeguard from obstruction significant views to and across the water from highways, scenic overlooks, public parks, and other vantage points. The importance of the skyline as seen from tidal waters in determining the character of a view site must be recognized; it should, where possible, not be disrupted by visually intrusive structures.” Superstructures associated with boat and float lift systems constitute a significant intrusive impact to the visual importance of Type 2 shorelines and also detracts from the character of Type 2 waters.
5. In accordance with §300.4.B, the Council assesses all proposed residential boating facilities for their appropriateness given geologic site conditions, potential impacts on public trust resources, potential navigation impacts, potential aesthetic and scenic impacts, and cumulative impacts associated with the increased density of existing recreational boating facilities in the vicinity of the proposed project. In considering these factors, the Council weighs the benefits of the proposed activity against its potential impacts and thus makes a determination on the merits of the structure given existing site conditions. Boat and/or float lifts may intensify low impact activities beyond that which is necessary to justify their use.
6. The Council’s purpose in designating certain waterbodies as Type 2 is to minimize the potential for intensified use of the state’s tidal waters and is in keeping with the Council’s mandate to protect public trust resources. Boat and float lifts in coastal ponds and certain other low energy and low intensity use areas are considered excessive and can be expected to detract from high scenic values. In this regard, the Council has determined that in certain Type 2 waters, the construction of boat and float lifts is considered an unacceptable intensification of use which detracts from public use of tidal waters and associated natural resources held in the public trust.

C. Policies

1. Boat and/or float lifts may be allowed in Type 3, 5, and 6 waters. Boat and/or float lifts may be allowed in Type 2 Waters in accordance with this section. For Council purposes, the raising of floats and ramps by manual methods (manual pulleys, come-a-longs, etc...) for temporary elevated off-season storage shall not be considered a float lift in accordance with this section. This exception shall only apply to methods that do not require the installation of permanent winches, pulley systems or other permanent mechanical structures, pilings, or equipment. The off-season shall be considered November 1 to May 1.
2. It is the Council's policy to assess all boat and/or float lifts for their appropriateness given site conditions, including impacts on public trust and coastal resources, aesthetic and scenic resources, and cumulative impacts. Boat and/or float lifts in Type 2 waters shall be allowed only for the minimum amount necessary to accommodate a residential dock.

D. Prerequisites

1. Boat and float lift applications for Type 2 waters shall be considered Category B applications (see § 300.1).
2. All applications for boat lifts or float lifts in Type 2 waters, whether as part of a residential boating facility application or separate, shall be referred to the Council for a hearing. If a residential boating facility application includes a boat and/or float lift and is proposed in Type 2 waters, then the entire application shall be heard by the Council. All other boat and float lift applications shall be reviewed in accordance with the Council's established policies as found in §300.4.
3. s boat and float lifts are considered by the Council to be accessory structures to residential boating facilities, and as the Council only approves or denies a recreational boating facility on the merits of the structure given existing site conditions, boat and/or float lift requests shall not be deliberated by the Council unless the Council has separately or previously approved an application for a residential boating facility. Such an application for a residential boating facility may include a request for a boat and/or float lift; however the Council shall not weigh the benefits nor disadvantages of a boat or float lift as an argument for a residential boating facility approval or denial in its deliberations of a residential boating facility application.
4. An application for a Council Assent for a boat and/or float lift will include a plan prepared and stamped by a professional engineer.

E. Prohibitions

1. Marine railway systems are prohibited except in association with: a marina; or, a commercial or industrial water dependent activity in type 3, 5, and 6 waters.
2. Boat and float lifts are prohibited in Type 1 waters and in association with existing previously-permitted residential boating facilities in Type 1 waters.
3. Since the Council has determined that boat and float lifts detract from the high scenic value and important visual characteristics of Type 2 waters, and, since these structures may be considered an unacceptable intensification of use within certain public waters designated for low intensity use, boat and float lifts are prohibited from all Type 2 waters within the following waterbodies:

Pawcatuck River;	Winnapaug Pond;
Quonochontaug Pond;	Ninigret Pond;
Green Hill Pond;	Potter Pond;
Pt. Judith Pond;	Narrow River;
Bissel Cove;	Wickford Harbor;
Barrington River;	Palmer River;
Kickemuit River;	Potter Cove;
Bristol Harbor;	Blue Bill Cove.

4. Lift superstructures such as but not limited to beams and joist-like structures that sit or are fixed atop pilings are prohibited.
5. Float lifts shall be limited to one (1) per residential boating facility. More than one (1) float lift at a residential boating facility shall be prohibited.

F. Standards

1. When raised, the gunwale of the vessel or the deck of the float shall not be any higher than the deck of the fixed pier portion of the residential boating facility to which it is being lifted. When no fixed pier is used, the gunwale of the vessel or the deck of the float shall not be any higher than the plane of the land from which the residential boating facility emanates, or the bottom of the vessel or float shall not be greater than three (3) feet above the high tide level, whichever is lesser. When a lift system can allow a vessel or float to be raised higher than this standard, mechanical stops limiting the height allowance must be employed.
2. The height of the lift system shall not be higher than the height of the pilings used to construct the dock, or shall not be higher than five feet (5') above the deck of the pier to which it is constructed, whichever is lower. However, the winch of the lift system may sit affixed to the top of a piling.
3. Boat and/or float lifts shall not intrude into the area within 25 feet of an extension of abutting property lines unless (1) it is to be associated with a residential boating facility which is a common structure for two or more adjoining owners concurrently applying, or (2) a letter or letters of no objection from the affected owner or owners are forwarded to the CRMC with the application.
4. Boat lifts shall be limited to two (2) per residential boating facility.

Section 300.17. Wetland Walkover Structures

A. Definitions

1. Wetland walkover structures are raised pile-supported facilities which provide passage over a wetland for purposes of providing pedestrian access between areas of upland isolated by the presence of wetland.

B. Findings

1. Physical passage to portions of property suitable for access is sometimes restricted due to the presence of wetland.
2. Certain types of wetlands are tolerant of minor amounts of foot-traffic without incurring significant environmental damage.
3. Wetlands which have high habitat values for fish and wildlife, high scenic value, or due to their relative size, vegetation types, and other characteristics are more susceptible to environmental damage, or have a higher probability of sustaining loss of habitat or scenic values, when altered.
4. The abundance and diversity of plant and animal life (ref. Section 300.1(5)), overall habitat values for feeding, nesting and resting cover for wildlife, fish productivity, and the probability of providing acceptable habitat for rare and sensitive species of plant and animal life, often improve dramatically as coastal wetlands increase in size. Further, certain species depend exclusively on large tracts of uninterrupted salt marsh. Consequently, activities and alterations which disturb or bisect large tracts of coastal wetland into smaller segments cause ecological damage commonly referred to as "habitat fragmentation." The Council recognizes that habitat fragmentation and other disturbances of large areas of coastal wetland may significantly impact important ecological values, or may cause the decline, or eventual elimination of certain species of plant and animal life.
5. Minor alterations of wetlands associated with wetland walkover structures may be considered appropriate for access upon property when proposed in accordance with this section.

C. Policies

1. It is the policy of the Council to prohibit wetland walkover structures unless it is demonstrated that the structure provides the only reasonable access available to an applicant for access on his/her property for passive recreational pedestrian purposes, and that the wetland will incur significant environmental damage from foot-traffic. In cases where the Council finds that wetlands will not incur significant environmental damage from foot-traffic, dependent on individual site assessments, the Council may deny wetland walkover structures.
2. Wetland walkover structures proposed to extend beyond the limit of emergent vegetative wetlands are considered residential boating facilities (see Section 300.4).

D. Prerequisites

1. Wetland walkover structure applications in Type 2 waters, and in coastal wetlands designated for preservation or restoration, shall be considered Category B applications (see Section 300.1). Wetland walkover structures in Type 3, 4, 5, and 6 waters shall be considered Category A* applications.

E. Prohibitions

1. Activities including but not limited to attached decks, docks, observation platforms, floats, or other similar structures are prohibited on or adjacent to wetland walkover structures.

2. Wetland walkover structures are prohibited in Type 1 waters. Wetland walkover structures are prohibited in Type 2 waters where there are (a) wetlands having 10 acres or more of salt marsh habitat in total area; (b) wetlands determined to have high fish and wildlife habitat value based on staff review; and/or (c) wetlands which provide high scenic value as determined by the Council. Wetland walkover structures greater than 100 feet in length are prohibited.
3. Wetland walkover structures are prohibited from crossing any salt marsh pools, tidal creeks or pannes, open waters of coastal ponds, or any other open tidal or nontidal waters, excluding freshwater streams, rivers, and salt marsh mosquito ditches.
4. Wetland walkover structures are prohibited over wetlands contained within wildlife refuges, state management areas, and other public properties, unless the structure is to be used by the public and is determined by the Council to have no significant environmental impact.

F. Standards

1. Wetland walkover structures crossing marshes shall be constructed during the winter dormant season, December 1 through March 15.
2. Construction over wetlands shall be thirty (30) inches in height above the ground (wetland substrate) surface as measured from the decking of the structure. In certain cases, to protect wetlands having tall vegetative life forms, and based on individual site assessments, the Council may require that the structure be elevated to a maximum height of fifty (50) inches.
3. Maximum width of wetland walkover structures shall be two and one-half (2½) feet.
4. Installation of pilings shall be conducted manually and spaced 15 feet on center, spanning the wetland if possible.
5. Deck spacing shall be one (1) inch minimum using 5/4" decking material, for light penetration.
6. In order to minimize the scenic impact of wetland walkover structures, the use of handrails shall be strictly avoided. Where it is determined a wetland walkover structure constructed to CRMP height standards without handrails represents a safety concern, the Council may choose to grant a variance to the height standard rather than authorize handrails.
7. Construction materials of wetland walkover structures shall be limited to timber or recycled timber products, except for timber connection hardware. The use of creosote as a wood preservative is prohibited.
8. Site plans for wetland walkover structures shall be drawn to scale, accurately show all property lines and the affected wetland, accurately describe the type of wetland to be spanned, and include all necessary construction details. A site plan prepared by a RI-certified professional engineer or registered land surveyor shall be required for wetland walkover structures greater than thirty (30) feet in length, and a biologist may be required to flag the wetland edge.
9. Wetland walkover structures shall be limited to one (1) per lot of record.
10. See standards in Section 300.2 "Filling, Removing, or Grading of Shoreline Features," as applicable.
11. See Section 300.3, subsections "F. Flood Zone Construction" and "G. Guidelines for Construction in Flood Hazard Zones," as applicable.

Section 300.18

Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern

A. Definitions

1. Submerged Aquatic Vegetation (SAV) refers to rooted, vascular, flowering plants that, except for some flowering structures, live and grow below the water surface in coastal and estuarine waters in large meadows or small disjunct beds. SAV species of concern to CRMC for regulatory purposes include eelgrass (*Zostera marina*) and widgeon grass (*Ruppia maritima*), with eelgrass as the dominant SAV in Rhode Island waters.
2. Eelgrass is a marine vascular plant capable of both vegetative and sexual growth. Eelgrass can occur in salinity ranges averaging 5-36 (PSU) practical salinity units and depths of less than one meter to six (6)meters in Rhode Island waters at MLW, depending on water clarity.
3. Widgeon grass is a rooted, submerged aquatic plant which is capable of both vegetative and sexual growth. Widgeon grass exists primarily in saline and brackish waters, salt ponds and pools within salt marshes, and inland saline waters. Widgeon grass is an important source of food for waterfowl and provides shelter and nursery habitat for fish and shellfish. (See Stuckey, I. H. and Lisa Lofland Gould, Coastal Plants from Cape Cod to Cape Canaveral. 2001).
4. SAV habitat is the sediment and water column, and the physical, chemical and biological processes that are necessary to support SAV. SAV habitat occurs in continuously vegetated beds and in intermittent vegetated beds, including unvegetated areas between vegetated beds.

B. Findings

1. Eelgrass roots and rhizomes inhabit sediments ranging from soft mud to coarse sand and exist in an aquatic environment subject to wave and tidal action and shifting sediment. Eelgrass has thin, green strap-like leaves ranging from up to 1m long and 10mm wide. Eelgrass coverage is variable ranging from a few individual plants in a small patch (less than one square meter) to submerged meadows covering many acres.
2. There is an annual and perennial form of eelgrass. The annual form grows from seed in June and July and the plants are not connected by rhizome. The perennial form grows laterally by means of rhizomes and a root system. Lateral expansion is fairly slow at about one meter per year. Both annual and perennial forms produce seeds. Widgeon grass has annual shoots which flower in the summer, along with a perennial base. Fruiting occurs from July to October. The plant grows in soft, muddy sediments and sandy substrates.
3. Deep water habitats include subtidal waters bordering the immediate shoreline where a depth of three (3) or more meters is typically achieved within 100 to 200 feet seaward of the MLW mark. In these areas, eelgrass is typically limited to the shoreline fringe. This environmental setting is typical of the open waters of Narragansett Bay, Block Island and Rhode Island Sounds. Examples of these areas include the shorelines of Prudence Island, Jamestown and Block Island.
4. Shallow water habitats include subtidal waters where a depth of 3 meters is not attained within 100 – 200 feet of the shoreline and where the average waterbody depth is generally less than 3 meters. This situation is typical of the salt ponds and other shallow coastal embayments. On the southern shore of

the state are a series of coastal lagoons (“salt ponds”) connected to Block Island Sound and the Sakonnet River by tidal inlets. A total of 26 brackish or marine coastal lagoons have been identified within the state. Compared to the deep water habitats described above, the lagoons are generally shallow (more than half the area is only 1m deep). Sediment is primarily glacial outwash, sand and gravel. The water in these lagoons varies in its rate of exchange with oceanic water and consequently, its salinity. On the active lobes of the tidal delta, the annual form of *Zostera* occurs seasonally. On inactive lobes, *Zostera* is found in the submerged margins of the building salt marsh. *Ruppia* appears in coves with restricted water circulation. Coastal lagoons warm up earlier in the year, reach higher temperatures and cool off sooner than deep water habitats. *Zostera* is the overwhelmingly dominant species in lagoons with the greatest oceanic exchange and its biomass is most concentrated in beds nearest an opening between the pond and ocean. (See Sheath, R.G., and M.H. Harlin, ed. "Freshwater and Marine Plants of Rhode Island," Kendall/Hunt Publishing Company, 1988, 149pp.).

5. SAV benefits are defined to include, but are not limited to, the following: SAV provide support for large numbers of organisms, both plant and animal, and produce large quantities of organic material, which is important as a base to an active food cycle; the root structures bind sediments while the leaves baffle waves and currents, thereby trapping water column-borne material and retarding the resuspension of fine particles while enhancing sediment stability; nutrient uptake occurs through both the leaves and the root system as well as by associated algae; SAV roots and leaves provide varied food resources and physical support for large numbers of fauna; SAV also provides nursery habitat for finfish and shellfish.
6. Many species of fish and wildlife are directly dependent upon SAV for refuge, attachment, spawning, and food. SAV provide a source of attachment and/or protection for the bay scallop (*Argopectin irradians*) and hard clam (*Mercenaria mercenaria*). Tautog (*Tautoga onitis*) and other fish lay their eggs on the surface of eelgrass leaves, and juvenile and larval stage starfish, snails, mussels, and other creatures attach themselves to eelgrass leaves. Scientific evidence also indicates that blue crabs (*Callinectes sapidus*) and lobster (*Homarus americanus*) have a strong reliance on SAV. Studies in New England have documented the occurrence of 40 species of fishes and 9 species of invertebrates in eelgrass beds. Waterfowl using submergent plant beds include American coot (*Fulica americana*), Mute swan (*Cygnus olor*), Gadwall (*Anas strepera*), American Wigeon (*Anas americana*), Canvasback (*Aythya valisneria*), and Redhead (*Aythya americana*). These birds feed on the foliage or tubers of the seagrasses. Blue-winged Teal (*Anas discors*) and Mallards (*Anas platyrhynchos*) may strain out floating seeds, strip seed from emerging heads, pluck off associated invertebrates, and bottom feed. Pied-billed Grebes (*Podilymbus podiceps*) also feed among the SAV, capturing small fish and large invertebrates taking cover there. Wading birds, such as egrets (*Ardea sp.*, *Egretta sp.*) may use mats of SAV as stationary feeding perches or for traversing. (See Weller, M.W. "Wetland Birds: Habitat Resources and Conservation Implications," Cambridge University Press, 1999, 271pp.).
7. Historically, SAV existed in Rhode Island waters in shallow water embayments and areas that were poorly flushed by tidal currents. Review of historical information has shown that eelgrass beds were once widespread in Narragansett Bay, and that as late as the 1860s, extensive eelgrass beds were present even in the Providence River at the head of the bay. The eelgrass decline during the 1930s has been attributed to the advent of a disease (“wasting disease”), which caused a 90% destruction of all eelgrass beds in the Atlantic range. Healthy populations were generally re-established by the 1960s.
8. Today, eelgrass beds cover less than 100 of the 96,000 acres that comprise Narragansett Bay. Scientific evidence suggests that the most important factor contributing to the continuing decline of

eelgrass has most likely been the introduction of increasing amounts of anthropogenic nitrogen to Narragansett Bay particularly since the 1950s, as the year-round human population near the water substantially increased both around Narragansett Bay and in the Salt Pond Region. In the salt ponds, nitrate-nitrogen loading from septic systems has contributed to a 41% decline in eelgrass beds over a 32-year period. (Short FT, Burdick DM, Granger S, Nixon SW. 1996. Long-term decline in eelgrass, *Zostera marina*, linked to increased housing development In: KUo J, Phillips RC, Walker DI, Krikman H (eds) *Seagrass Biology: Proceedings of an International Workshop*, Rottnest Island, Western Australia, 25-29 January 1996. University of Western Australia, Nedlands, Western Australia. Pp. 291-298). Historical trends of widgeon grass in Rhode Island waters have not been comprehensively studied.

9. Adverse impacts to SAV and SAV habitat include mechanical, chemical and physical damage of SAV, that may result from boat propellers, dredging and filling, bottom-disturbing fish harvesting techniques (i.e., scallop dredging, clam dredging and toothed rakes), shading caused by physical structures over beds (e.g. docks, piers) and/or excess nutrients, particularly nitrogen, causing excess algal bloom levels and high turbidity. Many activities under the Council's jurisdiction have the potential to adversely impact SAV and its habitat. These activities include but are not limited to Residential, Commercial, Industrial, and Public Recreational Structures (Section 300.3), Recreational Boating Facilities (Section 300.4), Sewage Treatment and Stormwater (Section 300.6), Dredging and Dredged Materials Disposal (Section 300.9), Filling in Tidal Waters (Section 300.10), Aquaculture (Section 300.11), and activities undertaken in accordance with municipal harbor regulations (Section 300.15). Fishery harvesting techniques can also adversely impact eelgrass beds. Scallop dredging can significantly reduce biomass and surface area as well as shoot density of eelgrass. Toothed rakes used for shellfishing can also uproot eelgrass, while boat propellers and prop scarring of the marine bottom can destroy SAV by slicing and uprooting shoots.
10. Aquaculture operations, which utilize floating racks and bottom culture techniques, can shade SAV. However, shellfish aquaculture is acknowledged to improve water quality. Therefore, in cases where an aquaculture permit has been issued where SAV was not present and then due to improved water quality as a result of aquaculture operations, SAV subsequently colonizes within the permitted facility area, the leaseholder shall be considered grandfathered and not subject to the standards/requirements of this Section. Future proposed expansions shall be subject to review under this Section.
11. Water quality and, in particular light intensity reaching the leaves is considered the most critical factor in the maintenance of healthy SAV habitats. Light availability controls the depth of SAV because SAV is dependent on photosynthesis. Factors that can act to reduce light levels include shading due to physical structures, water column clarity due to the excess of suspended solids, and nutrient enriched phytoplankton and macroalgal growth.
12. Research in Waquoit Bay, Massachusetts indicates that the height of a dock over the marine bottom is clearly the most important variable for predicting the relative light reaching eelgrass and for predicting eelgrass bed quality under docks. Docks with a north-south orientation admit more light and can better support eelgrass. Docks and their associated floats and boats placed over eelgrass beds can cause severe local impacts to eelgrass. Population-level impacts occur through shading from docks as well as boats, and prop dredging by boat motors, leading to the elimination of eelgrass under and around many docks. Research at Waquoit Bay indicates that impacts under floating docks generally resulted in complete loss of eelgrass. Research indicates that 30% is a minimum light level for support of eelgrass under docks (Short et al 1995). Based on a model developed by Burdick and Short (1995) to achieve a 30% minimum light level, docks need to be a maximum of 1 m (3.28 feet) wide and 3.0 meters (9.8 feet) above the marine bottom and situated in a north-south orientation.

Recent reports have supported this preliminary finding (*See* Henry, K., "Jamestown Eelgrass Monitoring Review: A Summary of Existing Jamestown Eelgrass Monitoring Surveys." 2005). Even if such requirements are attained, above and below ground growth rates and vegetative reproduction are negatively affected. (*See* Bintz, Joanne C. and Scott W. Nixon, "Responses of eelgrass *Zostera marina* seedlings to reduced light." *Mar Ecol Prog Ser* 223: 133-141, 2001).

13. Several recent national and regional efforts support the need for protection and management of Rhode Island SAV resources. The Atlantic States Marine Fisheries Commission (ASMFC) developed a submerged aquatic vegetation policy in 1997 to communicate the need for conservation of coastal SAV resources for the protection of ASMFC managed species, and to highlight state and ASMFC coastal SAV conservation and enhancement efforts. The New England Fishery Management Council has designated Essential Fish Habitat (EFH) as approved by the National Marine Fisheries Service (NMFS) under the requirements of the 1996 Magnuson-Stevens Fishery Conservation and Management Act. Because of its fisheries habitat value, SAV is a Habitat Area of Particular Concern protected under the EFH provisions of the Magnuson-Stevens Act.
14. SAV inventories conducted during the times of peak biomass provide the best indication of habitat or potential habitat (Fonseca et. al 1998). Peak biomass occurs in seagrass beds toward the end of the growing season and before plants have released their seeds. Plants that flower and develop seeds die shortly after releasing them. The growth and reproduction of eelgrass is affected by a number of environmental parameters such as light, water temperature, nutrient availability etc. When water temperatures exceed approximately 22 degrees Celsius (71.6 degrees Fahrenheit), seagrass growth can dramatically decrease and the development of seeds through sexual reproduction can be initiated in Rhode Island waters. As a result, the peak biomass period for eelgrass in Narragansett Bay typically occurs between July and August. Peak biomass in the south shore salt ponds and other shallow water embayments typically occurs during July.

C. Policies

1. The Council's goal is to preserve, protect and where possible, restore SAV habitat. In cases where the Council determines that SAV may be altered or grants a special exception to a prohibition listed in Section 300.18D, the Council shall require the mitigation of all impacts to SAV. Such activities requiring mitigation include, but are not limited to, marina expansions, dredging, filling in tidal waters, construction of commercial docks and/or structures and any other activity determined by CRMC that has not significantly or appropriately avoided impacts to SAV. Permanently lost or significantly altered SAV shall be replaced through the restoration of an historical SAV habitat or the creation of a new SAV habitat at a site approved by the Council. The ratio of restoration to loss shall be 2:1.
2. Activities under CRMC jurisdiction, including Residential, Commercial, Industrial, and Public Recreational Structures (Section 300.3), Recreational Boating Facilities (Section 300.4), Sewage Treatment and Stormwater (Section 300.6), Dredging and Dredged Materials Disposal (Section 300.9), Filling in Tidal Waters (Section 300.10), Aquaculture (Section 300.11), and activities undertaken in accordance with municipal harbor regulations (Section 300.15), shall avoid and minimize impacts to SAV habitat.
3. The Council supports cooperative efforts to determine the current status and identify trends in the health and abundance of SAV species in Rhode Island using the best information as it becomes available.
4. The Council shall assess the potential impacts to SAV and its habitat from proposed activities on a case-by-case basis. Such impacts may include, but shall not be limited to the introduction of

excess nutrients, sedimentation, shading, and/or disruption of SAV and SAV habitats.

5. All impacts to SAV and SAV habitat shall be avoided where possible and minimized to the extent practicable. Where the impacts are substantial or cannot be avoided or minimized, the Council may deny the application. The Council may exercise greater discretion if the proposed site is adjacent to or includes a restoration site and/or the site includes the sole source of SAV habitat.
6. SAV habitats designated for preservation within the boundaries of the Narragansett Bay National Estuarine Reserve (NBNERR) are identified on the *SAV Habitats Designated for Preservation in Narragansett Bay* maps (January 13, 2000), available for inspection at the Council's offices. The Narragansett Bay National Estuarine Research Reserve includes waters extending to the 18-foot depth contour around Patience Island, the northern half of Prudence Island, portions of the southern half of Prudence Island and Hope Island. In areas within the NBNERR which are designated for preservation on the above maps, alterations and activities which impact the health and abundance of the SAV habitat are prohibited. These maps serve to identify individual SAV habitats, and are for general reference only; in all cases precise boundaries shall be determined through a proper survey conducted in accordance with these guidelines when proposals that could impact these features are being considered.
7. In tidal waters where applicants propose activities under Sections 300.3, 300.4, 300.6, 300.9, 300.10, 300.11, and 300.15, and the Council's staff determines that SAV habitat is not present, an SAV survey will not be required. When such activities are proposed in areas of current or historic SAV habitat, an SAV survey shall be required. (See 300.18E.2)
8. It is the policy of the Council that SAV surveys shall be completed during peak biomass. SAV surveys shall be completed in Narragansett Bay between July 1 and September 15. SAV surveys shall be completed in the south shore coastal ponds and other shallow water embayments between July 1 and August 15. SAV must be avoided where possible by utilizing any available location and orientation which does not require crossing the bed with the dock. In evaluating applications for dock construction, and/or modifications to existing docks, in areas of known SAV habitat, the Council will consider dock design features including, but not limited to, the height and width of the dock structure, the orientation of the dock structure, the availability of sunlight to the eelgrass habitat, the cumulative impacts of multiple docks in the area, the disruption caused by construction and the disruption caused by normal use and maintenance of the dock structure. In determining the permissible design of a facility in an SAV habitat, the Council will rely on the latest available research, such as research findings developed by Burdick and Short (1995), and designs appropriate for the area.

D. Prohibitions

1. The Narragansett Bay National Estuarine Research Reserve (NBNERR) includes waters extending to the 18-foot depth contour around Patience Island, the northern half of Prudence Island, portions of the southern half of Prudence Island, and Hope Island. In areas within the NBNERR which are designated for preservation on the *SAV Habitats Designated for Preservation in Narragansett Bay* maps, alterations and activities which impact the health and abundance of SAV habitat are prohibited.
2. Floats, and float and platform lifts (including grate-type structures) associated with residential docks are prohibited over SAV as defined herein.

3. Boat lifts having the capacity to service vessels larger than a tender (vessels greater than 12 feet long and greater than 1,200 lbs) are prohibited over SAV.
4. The long-term docking of vessels at a recreational boating facility shall be prohibited over SAV.
5. Residential docks that span eelgrass beds to avoid and/or minimize impacts to said eelgrass and which are proposed to be 200 feet or more in length seaward of mean low water (MLW) shall be prohibited.

E. Standards

1. For activities under Sections 300.3, 300.4, 300.6, 300.9, 300.10, 300.11, and 300.15, where the Council's staff is satisfied that SAV is not present within the limits of the proposed activity, an SAV survey will not be required.
2. For activities under Sections 300.3, 300.4, 300.6, 300.9, 300.10, 300.11, and 300.15, the Council shall require SAV surveys in tidal waters of the south shore salt ponds and other shallow water embayments, around Jamestown, Newport and in other areas when the Council's staff has evidence of SAV habitats. In areas where the Council's Staff lacks enough evidence to make a determination of SAV presence or absence, an SAV survey may be required.
3. A survey that has been conducted three or more years prior to the date of the application will not satisfy the requirements of this Section.
4. Where an SAV survey is required, the following guidelines are recommended. Where these guidelines are not followed, CRMC staff may require additional information:
 - a. **SAV surveys shall be completed during peak biomass.** SAV surveys shall be completed in Narragansett Bay between July 1 and September 15. SAV surveys shall be completed in the south shore coastal ponds and other shallow water embayments between July 1 and August 15.
 - b. **Define the area of SAV within the limits of the proposed activity:** The SAV survey requires a series of transects located between the property line extensions associated with the proposed project site. A survey shall include transect lines (quantity dependant on the size of the project area) running perpendicular to the shoreline 3 meters apart (10 feet). Along each transect line a 1m² quadrat sampling station shall be placed every 3 meters (10 ft). It is important to go beyond the impacted area, especially to understand the impacts of the dock to SAV. In the case of fragmented beds, transect lines every 2 meters may be necessary. For projects not adjacent to the shoreline (i.e., aquaculture projects), locate the transects relative to another reference, such as a channel boundary or depth gradient.
 - c. **Define a datum:** The survey data for SAV shall be mean low water (MLW). MLW shall be set equal to zero.
 - d. **Quantify SAV along the transects:** Establish in-water sampling stations along transects along the bottom or as otherwise necessary to accurately delineate the bed. Use a quadrat measuring 1 m on each side. At each sampling station, determine percent coverage for SAV. Record the following data for each station:
 - General sediment type (silt, mud, sand, shell, etc.) based on observation or shallow surface core only;

- Estimate of percent coverage for quadrat; and
- Estimate the mean shoot length.

e. Report data collected: Overlay the SAV percent coverage and water depth data onto the site plan for the dock. Show transects, sampling stations, water depth, date and time of survey, and fixed-point locations on the site plan. For each transect, areas of SAV and associated water depth shall be located on the plans, as well as the landward and seaward (where practicable) limits of SAV.

5. Standard Design Options for the Construction of Residential Boating Facilities in areas of SAV habitat.

- a. If it is determined that SAV cannot be avoided, the impact to the bed must be minimized by reducing the amount of structure over the bed, by making provisions for avoiding the docking or mooring of boats over the bed and through the utilization of a design which minimizes boat travel through the bed as necessary to minimize propeller impacts including leaf shearing and sediment scouring.
- b. Deep-water habitat (see Section 300.18.B.3) dock design: Docks which cannot avoid the crossing of SAV shall minimize shading impacts through the utilization of a design which is consistent with the “Burdick and Short” method. Docks designed to the Burdick and Short method shall extend to a minimum depth of – 5’ MLW or shall extend to the seaward limit of the bed. CRMC regulations prohibit the installation of floats over eelgrass beds (see 300.18.D.2). Facilities which do not span the bed shall terminate as an elevated fixed pier or may utilize a fixed “T” or “L” section which is turned at a 90 degree angle to the main pier. All fixed “T” and “L” sections shall be designed to meet Burdick and Short. Access from the fixed pier, “T” or “L” section shall be by a ladder. Applicants proposing a dock using this design methodology may not dock a boat at the facility for purposes other than touch and go use and must show that a mooring is available for the long-term mooring of vessels proposed to be serviced by the facility. “Burdick and Short” methodology is available from the CRMC.
- c. The maximum length for facilities designed to meet Burdick and Short shall be when a depth of -5 MLW is obtained.
- d. Where a facility is not authorized to have a float, boat lifts to service tenders 12’ in length or less and having a 1,200 pound weight capacity or less may be authorized. These lifts shall be located near the terminus of the “T” or “L” section and achieve a minimum depth of -4’ MLW. Boat lifts of greater capacities over SAV are prohibited (See 300.18 D3).
- e. In shallow water habitats, where it is possible to avoid the bed by limiting the seaward extent of the facility, the design plans must depict the inland edge of the existing bed as well as depth soundings along the proposed facility. If a depth of 18 inches at MLW is obtained prior to encroaching on SAV, then the dock shall terminate at that length and depth. (*See E(5)(a)*).
- f. Pile driving equipment may not be grounded on SAV during construction.

6. In order to minimize impact upon SAV, all operations and docking of vessels shall be confined to the terminal portion of the facility. Docking and operation of motorized boats and/or other vessels

elsewhere along the facility shall only be permitted over areas of no SAV habitat, as determined during staff review.

Section 310.

Alterations to Freshwater Flows to Tidal Waters and Water Bodies and Coastal Ponds

A. Definitions

1. Alterations to the flows of tributaries include the installation of dams or other devices or fill material that alter flows of tributaries to tidal waters and that significantly change the timing and/or volumes of fresh water to coastal waters. Such alterations have a reasonable probability to conflict with a Council plan or program for resources management or may significantly affect the environment of the coastal region.

2. Alterations to the circulation of tidal waters include all structures and fill material that alter the behavior of waters within tidal water bodies, including the removal of tidal waters for industrial cooling or other purposes and the installation of structures in embayments and salt ponds that alter the volumes and/or timing of exchange with outlying tidal waters.

B. Policies

1. The Council recognizes that alterations to the volume and timing of fresh water discharged to estuarine water bodies can have a significant effect on the species and abundance of organisms present in the estuary and may also cause changes to sedimentation, erosion patterns, and flooding.

2. It is the Council's policy to maintain and enhance anadromous fish runs and to consult with the Department of Environmental Management when considering proposals that may affect these features.

C. Prerequisites

1. The construction of dams, tidal gates, and other structures affecting flows of tributaries and the circulation of tidal water bodies shall require an Army Corps of Engineers permit.

D. Standards

1. See standards given in "Filling, Removing, or Grading of Shoreline Features" (Section 300.2), as applicable.

2. See standards given in "Construction of Shoreline Protection Facilities" (Section 300.7), as applicable.

3. See standards given in "Sewage Treatment and Disposal" (Section 300.6), as applicable.

Section 320. Inland Activities and Alterations That Are Subject To Council Permitting

A. Definitions

1. The activities and alterations inland of shoreline features and their contiguous areas within state boundaries that may require a Council Assent are solid waste disposal; minerals extraction; chemical processing, transfer, and storage; power generation (excluding facilities of less than a 40-megawatt capacity); petroleum processing, transfer, and storage (excluding storage facilities of less than 2,400-barrel capacity); and sewage treatment and disposal (excluding individual sewage disposal systems).
2. Subdivision shall mean the division of a lot, tract, or parcel of land into two (2) or more lots, tracts, parcels or other divisions of land for sale, lease or other conveyance or for development simultaneously or at separate times. It also includes re-subdivision and when appropriate to the context, shall relate to the process of subdividing or to land subdivided. In computing six units or more the units shall be a total cumulative number of units on the property proposed after March 11, 1990, irrespective of ownership of the property or when the units are proposed.
3. For consistency with state land development legislation, the Council hereby adopts the activities identified by R.I.G.L. § 45-23-27 as applicable for review.

B. Policies

1. The Council shall review all proposals inland of the area contiguous to shoreline features which involve any of the above identified activities and alterations. The Council shall determine whether such proposals have a reasonable probability of conflicting with this Program or with adopted CRMC Special Area Management Plans, or have the potential to damage the coastal environment. Since, with the exception of those activities defined below, it is not practically feasible for persons proposing every activity that may come under Council jurisdiction to undergo such a review, the Council's policy is to assume the responsibility of informing parties proposing such inland activities or alterations when such a review is considered necessary. Where Council jurisdiction has established that there is a reasonable probability of conflict with this Program or an adopted CRMC Special Area Management Plan, or where potential exists to damage the coastal environment, the Council shall require that an Assent be obtained and that suitable modifications to the proposal be made.
2. Council Assents are also required for any other activity or alteration not listed in Table 1, Table 1A, or Table 1B but which (1) has a reasonable probability of conflicting with the Council's goals and its management plans or programs, and/or (2) has the potential to damage the environment of the coastal region.
3. Persons proposing subdivisions, co-operatives, and other multi-ownership facilities, [of six (6) units or more] or activities generating more than 40,000 square feet of impervious surface any portion of which extends onto a shoreline feature or its contiguous area, or within critical coastal areas, or those areas as identified in GLRI 45-23-27 are required to apply for a Council Assent.

Applicants proposing any of these activities shall satisfy all requirements specified in the RICRMP and any applicable special area management plan. Applicants shall also submit the following with their applications:

- (a) A Stormwater Management Plan as required in Section 300.6 and as described in the most recent version of the *Rhode Island Stormwater Design and Installation Manual*.
- (b) A soils map of the property (suggested scale 1:200) with an accompanying analysis of the best-use potential of the soils present; the soils maps and use potentials analysis prepared by the

U.S. Soil Conservation Service should be used as the basis for this analysis.

(c) An overlay map showing the principal vegetation types or any significant features identified by the Natural Heritage Program of the Department of Environmental Management and the Historic Preservation Commission on the property; the maps prepared by McConnell (1974) and Kupa and Whitman (1972) may be the basis for information on vegetation.

(d) An overlay showing the proposed subdivision layout, including buildings, roadways, parking areas, drainage systems, sewage treatment and disposal facilities, and undisturbed lands.

(e) A Site Plan as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*.

(f) Prior to permitting, an archeological survey when recommended by the state Historical Preservation & Heritage Commission.

Applicants shall submit this information to the Council for review at the earliest stages of planning such projects and are required to utilize the Council's Preliminary Determination process in accordance with applicable requirements of the Land Development and Subdivision Review Enabling Act (R.I.G.L. § 45-23-25 et seq.). Where so requested, all parties shall discuss their findings and recommendations at the municipality's pre-application conference, preliminary hearing, or similar proceeding. The findings and recommendations resulting from the coordinated, joint review shall be forwarded to the full Council. Where the Council finds a reasonable probability of conflict with this Program or with an adopted CRMC Special Area Management Plan, or finds there is a potential to damage the coastal environment, the Council shall require that suitable modification to the proposal be made or shall deny its Assent.

4. In those cases where a subdivision has been approved by the Council, any person wishing to conduct an approved activity, in accordance with the stipulations of the Council Assent, need not apply for a separate Assent unless so required by a stipulation of the Assent.

5. Applicants proposing the following projects are required to submit these projects for the Council's review:

(a) Power-generating plants (excluding facilities of less than a 40-megawatt capacity);

(b) Petroleum storage facilities (excluding storage facilities of less than 2,400-barrel capacity);

(c) Chemical or petroleum processing facilities;

(d) Minerals extraction;

(e) Sewage treatment and disposal facilities (excluding individual sewage disposal systems);

(f) Solid waste disposal facilities; and,

(g) Desalination plants.

Applicants proposing these activities shall demonstrate in writing that the Additional Category "B" requirements contained in Section 300.1 have been satisfied. If the Council determines that there is a reasonable probability that the project may impact coastal resources, then it shall be required to obtain a Council Assent in accordance with all applicable requirements of this program.

C. Prerequisites

1. Solid waste disposal: permits from the Department of Environmental Management are required pursuant to the Solid Waste Management Act; and Air Quality Permit will have to be obtained from DEM if disposal practices include incineration. Disposal of hazardous wastes requires DEM permits pursuant to the R.I. Hazardous Waste Management Program as well as EPA permits.
2. Minerals extraction: DEM may require a wetlands permit and a Section 401 Water Quality Certification; the U.S. Department of Interior, Office of Surface Mining, issues permits for mining operations not including sand and gravel extraction.
3. Chemical processing, transfer, and storage: DEM may require permits pursuant to the Solid Waste Management Act and the R.I. Hazardous Waste Management Program, as well as an Air Quality Permit, Section 401 Water Quality Certification, and a Spill Contingency Plan. The DEM may require a Rhode Island Pollution Discharge Elimination System (RIPDES) permit.
4. Power generation: persons proposing a hydroelectric plant are required by DEM to obtain a Wetlands Permit, Dam Safety Certificate, and a Section 401 Water Quality Certification; a Preliminary Permit will also have to be obtained from the Federal Energy Regulatory Commission (FERC). Other power-generating facilities may require a DEM Air Quality Certificate, Section 401 Water Quality Certification, and Spill Contingency Plan. An NPDES permit may have to be obtained from EPA Region 1.
5. Petroleum processing, transfer, and storage: DEM may require an Air Quality Certificate, a Section 401 Water Quality Certification, and a Spill Contingency Plan.
6. Sewage treatment and disposal: DEM requires an ISDS permit for on-site sanitary sewage disposal. Other facilities may require: an Underground Injection Control permit from the DEM; a DEM Section 401 Water Quality Certification, or a RIPDES permit from DEM.

D. Additional Category B Requirements

1. Applicants proposing energy-related facilities are referred to the Energy Amendments adopted by the Council in 1978.
2. Persons proposing subdivisions, co-operatives, and other multi-ownership facilities, of six (6) units or more, or facilities which use larger Individual Sewage Disposal Systems (as defined in the RIDEM regulations for Individual Sewage Disposal Systems) which are designed, installed, or operated as a single unit to treat more than 2,000 gallons per day or any combination of systems owned or controlled by a common owner and having a total design capacity of 2,000 gallons per day, or facilities requiring one acre or more of parking, any portion of which extends onto a shoreline feature or its contiguous area, or within the watershed of the poorly flushed estuaries delineated on the maps accompanying this program, are required to apply for a Council Assent. Applicants shall submit the following information to the Council for review in the early stages of planning such facilities:
 - (a) A soils map of the property (suggested scale 1:200) with an accompanying analysis of the best-use potential of the soils present; the soils maps and use potentials analysis prepared by the U.S. Soil Conservation Service should be used as the basis for this analysis.
 - (b) An overlay map showing the principal vegetation types or any significant features identified by the Natural Heritage Program of the Department of Environmental Management and the Historic Preservation Commission on the property; the maps prepared by McConnell (1974) and Kupa and Whitman (1972) may be the basis for information on vegetation.
 - (c) An overlay showing surface drainage patterns and, where available, information on the depth to groundwater and the direction and volume of groundwater flows.

- (d) An overlay showing the proposed subdivision layout, including buildings, roadways, parking areas, drainage systems, sewage treatment and disposal facilities, and undisturbed lands.
- (e) Prior to permitting, an archeological survey when recommended by the state Historical Preservation & Heritage Commission.

This information shall be forwarded by the Council to other divisions of DEM for concurrent review. The city or town in which the action is proposed shall be notified of the review and invited to participate; where so requested, all parties shall discuss their findings and recommendations at the municipality's pre-application conference, preliminary hearing, or similar proceeding. The findings and recommendations resulting from the coordinated joint review shall be forwarded to the full Council. Where the Council finds a reasonable probability of conflict with this Program or with an adopted CRMC Special Area Management Plan, or finds there is a potential to damage the coastal environment, the Council shall require that suitable modification to the proposal be made or shall deny its Assent.

- 3. In those cases, where a subdivision has been approved by the Council, any person wishing to conduct an approved activity, in accordance with the stipulations of the Council Assent, need not apply for a separate Assent unless by permit condition.
- 4. Subdivision shall mean the division of a lot, tract, or parcel of land into two (2) or more lots, tracts, parcels or other divisions of land for sale, lease or other conveyance or for development simultaneously or at separate times.

It also includes re-subdivision and, when appropriate to the context, shall relate to the process of subdividing or to land subdivided.

- 5. In computing six units or more the units shall be a total cumulative number of units on the property proposed after March 11, 1990, irrespective of ownership of the property or when the units are proposed.

E. Standards

- 1. See standards given in "Filling, Removing, or Grading" (Section 300.2), as applicable.
- 2. See standards given in "Residential, Commercial, Industrial, and Public Recreational Structures" (Section 300.3), as applicable.
- 3. See standards given in "Treatment of Sewage and Stormwater" (Section 300.6), as applicable.

Section 325. **Activities Located within Critical Coastal Areas**

A. Definitions

1. Critical coastal areas, which include watersheds of poorly flushed estuaries, are geographic areas which may vary in their ecological functions and generally require specific initiatives to manage them. Thus the CRMC has developed special area management (SAM) plans in order to address the specific environmental concerns of these priority management areas and to carry out its federal mandate for managing areas of particular concern. The CRMC SAM plan for Providence Harbor addresses issues such as water quality, public access, and urban waterfront development. The Interstate SAM plan for the Pawcatuck River Estuary and Little Narragansett Bay is a management plan which addresses public access, water quality, recreational boating, and inter-state coordination issues with Connecticut. The SAM plans for the Narrow River and Salt Pond regions address cumulative and secondary impacts of development in, and adjacent to, poorly flushed estuaries, and focus primarily on nonpoint source pollution, groundwater contamination, and on-site sewage disposal systems (OSDSs). The following apply to activities within critical coastal areas.

2. Subdivision: shall mean the division of a lot, tract, or parcel of land into two (2) or more lots, tracts, parcels or other divisions of land for sale lease or other conveyance or for development simultaneously or at separate times. It also includes re-subdivision and when appropriate to the context, shall relate to the process of subdividing or to land subdivided. In computing six units or more the units shall be a total cumulative number of units on the property proposed after March 11, 1990, irrespective of ownership of the property or when the units are proposed.

B. Findings

1. It is the goal of the Council to manage the watersheds of poorly flushed estuaries and critical coastal areas as an ecosystem, and to maintain the scenic qualities and habitats of the region, in addition to the diversity and intensity of activity. This requires that the Council balance multiple uses of the region, while preserving and, where possible, restoring the environmental quality. Managing these ecosystems requires managing the impacts associated with onsite sewage disposal, nutrient loadings to groundwater, stormwater runoff, erosion and sedimentation, changes in salinity levels, alterations to wetlands, and the degradation of other sensitive aquatic and terrestrial habitats as a result of development. Because the poorly flushed estuaries are particularly susceptible to the cumulative and secondary impacts of development, managing these ecosystems requires a comprehensive and coordinated long-term management approach as well as protective measures in excess of those afforded by the RICRMP.

Accordingly, the Council has developed Special Area Management Plans which contain ecosystem-based management strategies that address diverse issues consistent with the Council's legislative mandate to preserve and restore ecological systems. Central to this strategy is the recognition of complex interrelationships within the ecosystem. Special pollution concerns as well as cumulative and secondary impacts of various development activities on coastal resources require the Council to review specified activities inland of the 200 foot contiguous area within critical coastal areas because the activities have a reasonable probability of conflicting with the goals and objectives of the special area management plans and lead to clear impacts on coastal resources. The specified activities correspond to major land uses and impacts on the ecosystem.

C. Policies

1. Since, with the exception of those activities defined below, it is not practical for every activity that may come under Council jurisdiction to undergo review, the Council's policy is to assume the responsibility of informing parties proposing such inland activities or alterations when such a review is considered necessary.

The Council has determined that the following activities within the watersheds of poorly flushed estuaries have a reasonable probability of conflicting with the management goals and objectives of this program or the Council's special area management plans:

- (a) Subdivisions, cooperatives, and other multi-ownership facilities [of six (6) units or more];
- (b) A structure serviced by an on-site sewage disposal system serving 2,000 gallons or more per day;
- (c) An activity which results in the creation of 40,000 sq. ft. or more of impervious surface;
- (d) Construction or extension of municipal or industrial sewage treatment facilities and sewer lines; and,
- (e) Construction or extension of water distribution systems and/or supply lines.

Applicants proposing these activities within critical coastal areas are required to apply for a Council Assent.

2. Applicants proposing any of the activities identified above shall satisfy all applicable requirements specified in the RICRMP as well as the Council's special area management plans. Applicants are also required to submit the following with their applications:

- (a) A Stormwater Management Plan prepared in accordance with Section 300.6.
- (b) An erosion and sediment control plan prepared in accordance with the standards contained in Section 300.2.
- (c) A soils map of the property (suggested scale 1:200) with an accompanying analysis of the best-use potential of the soils present; the soils maps and use potentials analysis prepared by the U.S. Soil Conservation Service should be used as the basis for this analysis.
- (d) An overlay map showing the principle vegetation types or any significant features identified by the Natural Heritage Program of the Department of Environmental Management and the Historic Preservation Commission on the property; the maps prepared by McConnell (1974) and Kupa and Whitman (1972) may be the basis for information on vegetation.
- (e) An overlay showing the proposed subdivision layout, including buildings, roadways, parking areas, drainage systems, sewage treatment and disposal facilities, and undisturbed lands.
- (f) A Site Plan as detailed in the most recent version of the *Rhode Island Stormwater Design and Installation Standards Manual*.

The city or town in which the action is proposed shall be notified of the review and invited to participate. Applicants for subdivisions shall submit this information to the Council for review at the earliest stages of planning such projects and are required to utilize the Council's Preliminary Determination process in accordance with applicable requirements of the Land Development and Subdivision Review Enabling Act (R.I.G.L. § 45-23-25 et seq.). Where so requested, all parties shall discuss their findings and recommendations at the municipality's pre-application conference, preliminary hearing, or similar proceeding. The findings and recommendations resulting from the coordinated, joint review shall be forwarded to the full Council. Where the Council finds a reasonable probability of conflict with this Program or with an adopted CRMC Special Area Management Plan, or finds there is a potential to damage the coastal environment, the Council shall require that suitable modification to the proposal be made or shall deny its Assent.

3. Applicable requirements of the RICRMP shall apply unless superseded by the requirements of a special area management plan.
4. In those cases where a subdivision has been approved by the Council, any person wishing to conduct an approved activity, in accordance with the stipulations of the Council Assent, need not apply for a separate Assent unless so required as a stipulation of Assent.

D. Standards

1. See standards given in "Filling, Removing, or Grading" (Section 300.2) as applicable.
2. See standards given in "Residential, Commercial, Industrial, and Public Recreational Structures" (Section 300.3), as applicable.
3. See standards given in "Treatment of Sewage and Stormwater" (Section 300.6), as applicable.

**Section 330.
Guidelines for the Protection and Enhancement of the Scenic
Value of the Coastal Region**

A. General Guidelines

1. The primary goal of all Council efforts to preserve, protect, and, where possible, restore the scenic value of the coastal region is to retain the visual diversity and often unique visual character of the Rhode Island coast as it is seen by hundreds of thousands of residents and tourists each year from boats, bridges, and such public vantage points as roadways, public parks, and public beaches.
2. Every effort should be made to safeguard from obstruction significant views to and across the water from highways, scenic overlooks, public parks, and other vantage points enjoyed by the public.
3. The importance of the skyline as seen from tidal waters in determining the character of a view site must be recognized; it should, where possible, not be disrupted by visually intrusive structures.
4. On sites in or adjacent to historic features and districts, new structures should be designed to provide continuity with the existing scenic and historic character. Within historic districts, applicants shall consult with the Historic Preservation Commission to identify means for minimizing disruption and, where possible, enhancing the historic value of the area.
5. Excellent guidance for preserving the visual character and quality of coastal landscapes in Rhode Island are contained in "Building at the Shore: A Handbook for Residential Development on the Rhode Island Coast." Review copies are available at the Council's office in Wakefield.

B. In and Adjacent to Type 1, 2, and 4 Waters

1. Structures along the water's edge should be screened by vegetation, preferably with native species typical to the area rather than exotic.
2. Trees that form the first line of visual definition as one looks landward from the water should be preserved.
3. In new developments, trees should be planted in the drifts that generally follow land contours and parallel the water's edge rather than in lines that cut across landscape contours.
4. Disruptions of natural landform and vegetation should be minimized.
5. New developments should not compete visually with such significant shoreline features as coves, peninsulas, cliffs, and bluffs; they should be set back and screened.

C. In and Adjacent to Type 3, 5, and 6 Waters

1. In all areas adjacent to Type 3 and 5 waters and, where appropriate, adjacent to Type 6 waters, the public should, where possible, be provided a sense of the water from within the townscape. Views to and across the water through yards, between houses, and from roadways should be preserved and, where possible, created.
2. When new structures are proposed adjacent to Type 3 and 5 waters, the character of new structures should be consistent and in character with existing buildings. The design of new structures should be based on an analysis of the patterns of existing buildings, including rooflines, roof slopes, building materials, colors, and window patterns. It is not necessary, however, to imitate pre-twentieth-century structures.

Section 335.
Protection and Enhancement of Public Access to the Shore

A. Definitions

1. Public access to the shore is a general term used to describe the ways and means by which the public may legally reach and enjoy the coastal areas and resources of the State.
2. Public right-of-way is a parcel of land over which the public has a right to access tidal waters.

B. Findings

1. In accordance with Article 1, Section 17 of the Constitution of the State of Rhode Island, the public has the legal right to use and enjoy Rhode Island's coastal resources.
2. As trustee of Rhode Island's coastal resources and in accordance with state and federal statutory mandates, the Council has a responsibility to ensure that public access to the shore is protected, maintained and, where possible, enhanced for the benefit of all.
3. Tourism and tourism-related industries, recreational boating and fishing, and commercial fishing contribute significantly to the economy of Rhode Island and are dependent upon adequate access to the shore throughout the State.
4. The scenic qualities of the Rhode Island coast are one of the State's greatest natural assets and economic resources. The ability to view the coast and shoreline areas without obstruction by structures is an integral component of public access to the shore in Rhode Island.
5. A wide variety of opportunities for public access exist in Rhode Island. However, poor site conditions exist at many access sites and many sites are not accessible to individuals with disabilities.
6. Well-designed and maintained public access sites and improvements to existing public access sites can enhance the value of adjacent properties. In addition, properly designed, maintained and marked public access facilities, including adequate parking areas, can reduce the pressures for use of or infringement upon adjacent properties.
7. The Council recognizes that, due to public safety, security or environmental considerations, certain sites may not be appropriate for physical access.
8. The placement of structures, such as seawalls and rip rap, in or along the shore may alter shoreline processes and reduce the amount of public access available.
9. Certain activities which require the private use of public trust resources to the exclusion of other public uses necessarily impact public access. In general, these activities include:
 - (a) Commercial and industrial development and redevelopment projects, as defined in section 300.3.
 - (b) New and significant expansions to marinas, as defined in section 300.4.

(c) Activities which involve the filling of tidal waters, as defined in section 300.10, other than those considered as maintenance, as defined in section 300.7.

C. Policies

1. It is the Council's policy to protect, maintain and, where possible, enhance public access to and along the shore for the benefit of all Rhode Islanders.
2. It is the Council's policy to require applicants to provide, where appropriate, on-site access of a similar type and level to that which is being impacted as the result of a proposed activity or development project.
3. Due to their likelihood of impacting public access and/or the public's use and enjoyment of Rhode Island's public trust resources, it is the Council's policy to require that applications for the following activities include a public access plan:
 - (a) Commercial and industrial development and redevelopment projects, as defined in section 300.3.
 - (b) New and significant expansions to marinas, as defined in section 300.4.
 - (c) Activities which involve the filling of tidal waters, as defined in section 300.10, other than those considered as maintenance, as defined in section 300.7.

In accordance with Section 120, a variance from this policy may be granted if an applicant can demonstrate that no significant public access impacts will occur as a result of the proposed project.

4. Publicly funded beach nourishment projects shall contain a public access component.
5. In accordance with R.I.G.L. 32-6-5(c), limited liability applies when the CRMC stipulates public access as a permit condition and when the Council designates a public right-of-way to the shore.

D. General Guidelines

1. Any public access impacts associated with a proposed project should be avoided and minimized to the maximum extent possible.
2. Any public access created to compensate for proposed project impacts should be of a type and level similar to that which will be impacted.
3. In cases where access cannot practically be provided onsite, due to safety, security, environmental or other considerations, the Council may permit access be provided offsite.
4. All structural shoreline protection facilities should be designed and constructed in a manner which does not reasonably interfere with the public's right to pass and re-pass along the shore.

E. Guidelines for the Development of Public Access Plans

1. The Council recognizes that public access plans should be developed based on the uniqueness of each site and encourages applicants to consult with staff early in the planning process.
2. Public access plans should provide for a level of access directly proportional to, and a type of access similar to, that which will be impacted by the proposed project.
3. In cases where access of a similar type and level can not be provided onsite, the Council will consider offsite alternatives. Applicants should consult with staff and municipal officials when considering offsite alternatives.
4. All public access plans should be consistent with the Americans with Disabilities Act of 1990.
5. All public access plans should provide for long-term maintenance.
6. When developing public access plans, applicants may incorporate the following examples:
 - (a) Physical access: the ability to reach the shoreline from upland areas via perpendicular access points such as rights-of-way, boat launch ramps, and fishing piers; and, the ability to pass and re-pass laterally along the shore.
 - (b) Visual access: the ability to view the coast and shoreline areas without obstruction by structures. Visual access can be provided or enhanced through the provision of viewing platforms, observatories, scenic drives, and innovative architectural designs.
 - (c) Interpretive access: the provision of signage, plaques, or other techniques to educate the public about the historical, ecological, economic, cultural or other significant aspects of a coastal site.

Section 400. Federal Consistency

A. Introduction

1. The federal consistency requirement, as provided for in section 307 of the Coastal Zone Management Act (CZMA) (16 USC §§ 1451-1464), is an important function of state coastal management programs. Under section 307, federal agencies conducting an activity which is reasonably likely to affect any land or water use or natural resource of the coastal zone, are required to do so in a manner consistent, to the maximum extent practicable, with the enforceable policies of the state's coastal management program developed and implemented under the CZMA. Federal permits and licenses, including those associated with outer continental shelf (OCS) plans, and grant-in-aid programs to local or state governments and related public entities, which are reasonably likely to affect any land or water use or natural resource of the coastal zone must also be consistent with the state's coastal management program.

2. As part of Rhode Island's coastal management program, both the geographical scope of the state's coastal zone and the enforceable policies applicable to the coastal zone have been defined and approved by the National Oceanic and Atmospheric Administration (NOAA). Rhode Island's approved coastal zone, for the purposes of exercising the federal consistency requirement of the CZMA, includes the area encompassed within the state's seaward boundary (three miles) to the inland boundaries of the state's 21 coastal communities. The Rhode Island Coastal Resources Management Program (RICRMP), which includes this "Redbook," the Council's Special Area Management Plans and Energy Amendments, and adopted State Guide Plan elements together make up Rhode Island's federally approved coastal program. The provisions of these programmatic documents and regulations which meet the definition of enforceable policies under the CZMA constitute the enforceable policies with which federal activities must be consistent in Rhode Island.

3. In order to assist federal agencies in determining whether a proposed activity is subject to the federal consistency requirement, and in accordance with the CZMA, the CRMC has listed activities, both direct and indirect, reasonably likely to affect any land or water use or natural resource of the coastal zone. It is important to note that these lists are not exhaustive and that any federal activity reasonably likely to affect any land or water use or natural resource of the coastal zone may be subject to the federal consistency requirement.

4. The Council's *Federal Consistency Manual* details the CRMC's federal consistency process and requirements and includes tables of listed activities subject to the federal consistency requirement. The *Manual* also provides background and an explanation of the federal consistency requirement as provided for in section 307 of the CZMA and its implementation in Rhode Island. The Council's federal consistency procedures and requirements have been derived directly from federal regulations implementing the CZMA provided in the Code of Federal Regulations (15 CFR Part 930). Any changes to the federal regulations supersede those of Rhode Island.

B. Definitions

1. Enforceable policies are those policies which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions, by which a State exerts control over private and public land and water uses and natural resources in the coastal zone (See 16 USC § 1453(6a)).

2. Direct federal activities are activities, including development projects, performed by a federal agency, or contractor on behalf of the federal agency. Examples of such actions include: installation of mooring buoys by the National Park Service; fisheries management plans by the National Marine Fisheries Service; naval exercises; the disposal of excess federal land by the General Services Administration; U.S. Army Corps of Engineers (Corps) navigational dredging and beach renourishment

projects; OCS oil and gas lease sales by the Minerals Management Service; improvements to military bases; and naval disposal of radioactive or hazardous waste performed by a private contractor.

3. Federal license or permit activities means any form of approval required by a federal agency (but does not include approvals to other federal agencies). Examples of such actions are: activities requiring Corps 404 permits; Interstate Commerce Commission water carrier licenses; Corps permits for use of ocean dump-sites; Nuclear Regulatory Commission permits for nuclear power plants; and delicensing of nuclear facilities by the Nuclear Regulatory Commission.

4. Outer Continental Shelf Exploration, Development and Production Activities are those activities associated with the exploration or development of, or production from, any area which has been leased under the Outer Continental Shelf Lands Act.

5. Federal Assistance to State and Local Governments means assistance provided under a federal program to any unit of state or local government or related public entity through grant or contractual arrangements, loans, subsidies, guarantees, insurance or other form of financial aid.

C. Policies

1. Federal agencies proposing an activity must follow the requirements of CZMA section 307(c)(1) and (2), 16 USC 1456 (c)(1) and (2), and 15 CFR part 930, subpart C.

2. A private individual or business, a state or local government agency, or any other type of non-federal entity, applying to the federal government for a required permit or license or any other type of an approval or authorization, must follow the procedures for "Non-Federal Activities Requiring a Federal License or Permit" and the requirements of CZMA section 307(c)(3)(A), 16 USC 1456(c)(3)(A), and 15 CFR part 930, subpart D.

3. Any private person or business applying to the federal government for outer continental shelf (OCS) exploration, development and production activities must follow the requirements of CZMA section 307(c)(3)(B), 16 USC §1456(c)(3)(B) and 15 CFR part 930, subpart E.

4. A state or local government agency, or related public entity, applying for federal financial assistance must follow the procedures for "Federal Assistance to State and Local Governments" and the requirements of CZMA section 307(d), 16 USC § 1456(d), and 15 CFR part 930, subpart F.

5. The Council's *Federal Consistency Manual* provides guidance on federal and state procedures and requirements associated with federal consistency requirement contained in section 307 of the CZMA. Except where superseded by federal regulations, federal activities, whether direct or indirect, shall be conducted in accordance with the procedures provided in the most recent version of the Council's *Federal Consistency Manual*.

D. Prerequisites

1. Where the Council requires other state permits as a prerequisite for application review, and the federal agency or non-federal entity is not exempt from obtaining those permits, the federal agency or non-federal entity shall obtain those permits prior to submitting its consistency determination.

2. In cases where the federal agency or non-federal entity may be exempt from obtaining other state permits which are a prerequisite for Council review of a proposed activity, and which are enforceable components of the RICRMP, the federal agency or non-federal entity shall furnish the CRMC with data and information adequate to ensure that the requirements of any prerequisite regulatory program have been met.

GLOSSARY

Agency. Boards, commissions, departments, or offices thereof, other than the legislature or the courts, authorized by law to make rules, determine contested cases, or issue permits.

Agricultural land. (1) Tilled or tillable land upon which a crop is being or has recently been produced; (2) actively managed orchards, nurseries and cranberry bogs, and (3) land used for livestock pasturing.

Alterations to freshwater flows to tidal waters and water bodies and coastal ponds. See Section 310.

Anadromous fish. Oceanic or estuarine species that spawn in fresh water.

Aquaculture. See Section 300.11

Areas of historic and archaeological significance. See Section 220.

Barrier beach. See Section 210.2.

Beach grass. The dominant vegetative cover of sand dunes (*Ammophila* spp.).

Beach pavilion. Recreational structure constructed for recreational purposes on a shoreline feature, its contiguous area, or in tidal waters that serves members of the public, owned by a municipal, state, or federal program.

Breachway. A connecting channel, usually between a coastal pond and the ocean, which permits water exchange between the two.

Breakwaters and jetties. See Section 300.7.

Buffer zone. A land area on or contiguous to a shoreline feature that is retained in its natural undisturbed condition.

Bulkhead. See Section 300.7.

Cease and desist orders. See Section 170.

Coastal beaches and dunes. See Section 210.1.

Coastal headlands, bluffs, and cliffs. See Section 210.4

Coastal environment. The complete system of living organisms and physical surroundings within the waters and shorelands of estuaries, the nearshore ocean and the terrestrial areas influenced by this system.

Coastal ponds. A coastal lagoon usually located behind a barrier which, in its natural condition, permanently or occasionally exchanges waters with the ocean.

Coastal wetlands. See Section 210.3 and 300.18

Compelling public purpose. Of such concern to the public welfare that it outweighs private of individual interests.

Council. The Rhode Island Coastal Resources Management Council.

Council meeting. Any meeting of the full Council or a subcommittee.

Council representative. A person appointed or employed as the Council's representative or agent.

Depositing shore. A shore which is accumulating sand or other sediments, as opposed to a shore which is eroding.

Developed barrier beaches. See Section 210.2

Development. Any material change in the use of any structure or land or water body, including but not limited to any building mining, dredging, fillings, excavation, or drilling operation: alteration of the shore, rivers, streams, lakes or ponds: devegetation, demolition, deposition of fill, solid or liquid waste: construction, installation, reconstruction of a structure: a change in the type of class or use of land: or a material increase in the intensity of use.

Discharge. Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping either directly or indirectly to the waters of the state of Rhode Island.

Dune. See Section 210.7

Ecosystem. A system formed by the interaction of a community of organisms with their environment.

Effluents. The outflow from a river, a pipe, or other watercourse.

Energy-related activities and structures. See Section 300.8.

Estuary. A semi-closed body of water that has free connection with the open sea within which seawater is measurably diluted with fresh water derived from land drainage.

Existing hospitality industry business. For CRMP purposes an existing hospitality industry business shall be a continuously operating commercial business that has lost a view of the shoreline over time through the growth of trees within a coastal buffer zone or forested wetland, as of the effective date of the rules. Qualifying hospitality industry business shall be limited to one of the following: A resort, restaurant, or hotel which provides services to the general public including tourists where such services are dependant upon a view of the shoreline to support their business.

Eutrophication. Nutrient enrichment to the aquatic environment, leading to excessive growth to aquatic plants, which can detrimentally alter water quality parameters, particularly oxygen concentration.

Fauna. Animal life.

Filling in tidal waters. See Section 300.10.

Filling on shoreline features. See Section 300.2.

Floating business. See Section 300.5.

Flora. Plant life.

Footprint. The square footage of the ground floor area encompassed by the structural foundation of a building.

Glacial till. Unconsolidated and unsorted material left by the movement of glaciers, consisting of clay, sand, gravel, and boulders.

Grading of shoreline features. See Section 300.2.

Groin. See Section 300.7.

Houseboat. See Section 300.5.

Hydrologic. Related to **water**.

individual sewage disposal system (ISDS). See Section 300.6

Larva. The early form of an animal that at birth or hatching is fundamentally unlike its parent and must metamorphose before assuming the adult form.

Launching ramp. See Section 300.4.

License. Includes the whole or part of any agency permit, certificate, approval, registration, charter, or similar form of permission required by law, no including those required solely for revenue purposes.

Longshore current. A current that flows parallel and adjacent to the shoreline.

Maintenance of structures. See Section 300.14.

Manmade shoreline. See Section 210.6.

Marina. See Section 300.4.

Mosquito control ditching. See Section 300.12.

Municipal harbor regulations. See Section 300.15.

Ocean dumping. Disposal of non-dredged waste materials from vessels or by other means into marine waters: ocean dumping does not include discharges of effluent incidental to the operation of vessels, the dumping of fish wastes, or the placement or deposit of materials on the sea floor for the purpose of enhancing fisheries.

One-hundred-year flood level. The area above mean high water which has a probability of being flooded once in a one-hundred-year period. The line has been designated by the Department of Housing and Urban Development.

Person. Any individual, partnership, corporation, association, governmental subdivision, or public or private organization of any character other than an agency.

Petroleum hydrocarbons. A compound originating from an oil, gas, or other petroleum base, and composed primarily of hydrogen and carbon.

Petroleum products. Includes crude or refined oils, kerosene, gasoline, natural gas, or liquified natural gas (LNG), liquified petroleum gas (LPG), synthetic natural gas (methane or SNG), or other petroleum derivatives.

Physiographic features. A landform or element of the landscape.

Plankton. Small, suspended aquatic plants and animals which drift or swim weakly in the water column.

Priority of use. Reflection of the Council's assessment of those uses deemed most likely to be consistent with adopted Council policies and regulations.

Program. As stated in this document, the State of Rhode Island Coastal Resources Management Program.

Public roadways, bridges, and parking lots, railroad lines and airports. See Section 300.13.

Recreation. Any voluntary experience engaged primarily during leisure time from which the individual derives satisfaction.

Recreational mooring area. See Section 300.4.

Removing a shoreline feature. See Section 300.2

Residential boating facilities. See Section 300.4.

residential, commercial, industrial, and public recreational structures. See Section 300.3.

Restoration. Return to a condition closely resembling a former, original, normal, or unimpaired condition.

Restoration orders. See Section 170.

Revetment. See Section 300.7.

Riparian rights. The rights of a person owning land containing or bordering on a watercourse related to access to the water, certain privileges regarding its uses, and the benefits of accretions and relictions.

Riprap. See Section 300.7.

Rocky shore. See Section 210.5.

Runoff. That portion of precipitation which is not absorbed into the ground and which drains naturally or through manmade channels to surface water bodies.

Scarp. A line of cliffs, bluffs produced by faulting or erosion.

Seawall. See Section 300.7.

Sedimentation. The settling to the bottom of suspended sediments.

Setbacks. The minimum distance from the inland boundary of a coastal feature at which an approved activity or alteration may be permitted.

Sewage. See Section 300.6.

Sewage treatment plant. See Section 300.6.

Shoreline category/type. One of the seven categories of Rhode Island Shoreline designated as part of this Program.

Shoreline protection facilities. See Section 300.7.

Significant damage to the environment. Detriment, harm, or destruction of the environment, as opposed to damage of trivial consequence.

Siltation curtains. Devices placed in the water during a dredging operation or other activity which resuspends bottom sediments in order to prevent the spreading of those sediments.

Special Exceptions. See Section 130.

Storm surge. An elevation in the sea surface from the effects of a storm.

Substantive objections. See Section 110.3.

Undue hardship. An inappropriate, unsuitable, unlawful, or excessive standard or requirement levied upon an applicant.

Variance. See Section 120.

Violation and enforcement actions. See Section 170.

Water-dependent activity use. Activities or uses which can only be conducted on, in, over, or adjacent to tidal waters or coastal ponds because the use requires access to the water from transportation, recreation, energy production, or source of water: also includes non-water-dependent activities that provide access to the shore to broad segments of the public.

Water use category/type. One of six use designations assigned to Rhode Island coastal waters as part of this Program.

References and Additional Sources of Information

- Boothroyd, Jon, and Abdullah Al-Saud. 1978. Survey of the Susceptibility of the Narragansett Bay Shoreline to Erosion. Unpublished Report to the University of Rhode Island Coastal Resources Center.
- CRMC and DEM, 1993. *State of Rhode Island Stormwater Design and Installation Standards Manual*. Coastal Resources Management Council, Wakefield, RI and Department of Environmental Management, Providence, RI.
- Coastal Resources Center. 1980. Providence Harbor: An Agenda for Action. A Report to the Harbor Estuary and Land Planning Advisory Committee of the Coastal Resources Management Council. University of Rhode Island.
- Collins, Clarkson, and Stephen Sedgwick. 1979. Recreational Boating in Rhode Island's Coastal Waters: A Look Forward. Coastal Resources Center, URI Marine Technical Report 75.
- Culver, S.J., Grand Pre, C.A., Mallinson, D.J., Riggs, S.R., Corbett, D.R., Foley, J., Hale, M., Metger, L., Ricardo, J., Rosenberger, J., Smith, C.G., Smith, C.W., Synder, S.W., Twamley, D., Farrell, K., and Horton, B, 2007. Late Holocene barrier island collapse: Outer Banks, North Carolina, USA. *SEPM, The Sedimentary Record*, 5, 4, 4-8.
- Department of Environmental Management, Rhode Island (RIDEM). 1990. *The Rhode Island Landscape Inventory: A Survey of the State's Scenic Areas* (Providence, RI: RIDEM, Division of Planning and Development, January).
- Department of Environmental Management, Rhode Island and USDA Soil Conservation Service. 1989. *Rhode Island Soil Erosion and Sediment Control Handbook*. Warwick, RI: USDA, Soil Conservation Service.
- Desbonnet, A., P. Pogue, N. Wolff and V. Lee. 1994. *Vegetated Buffers in the Coastal Zone: A Summary Review and Bibliography*. Contribution No. 2064 of the University of Rhode Island Coastal Resources Center (Kingston, RI: University of Rhode Island, Coastal Resources Center).
- Environmental Protection Agency (EPA). 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. U.S. Environmental Protection Agency, Office of Water. EPA Report 840-B-92-002 (Washington, DC: EPA, Office of Water, January).
- Farrell, Joseph, and Niels Rorholm. 1981. Personal communication to the Coastal Resources Center.
- IPCC, 2007. *Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)*. Geneva, Switzerland: UNEP.
- Kupa, John J., and William R. Whitman. 1972. Land Cover Types of Rhode Island: An Ecological Inventory. URI Agricultural Experiment Station Bulletin 409.
- Lee, Virginia. 1980. An Elusive Compromise: Rhode Island Coastal Ponds and Their People. Coastal Resources Center, URI Marine Technical Report 73.
- MacConnell, William P. 1974. Remote Sensing Land Use and Vegetative Covers in Rhode Island. Bulletin 200. University of Massachusetts, Amherst, Mass., July 1974.

- Olsen, Stephen B., and Malcolm J. Grant. 1973. Rhode Island's Barrier Beaches, Vols. I and II. A Report on a Management Problem and an Evaluation of Options. Coastal Resources Center. URI Marine Technical Report 4.
- Olsen, Stephen, and Virginia Lee. 1979. A Summary and Preliminary Evaluation of Data Pertaining to the Water Quality of Upper Narragansett Bay. Coastal Resources Center, University of Rhode Island.
- Olsen, Stephen B., and David K. Stevenson. 1975. Commercial Marine Fish and Fisheries of Rhode Island. Coastal Resources Center. URI Marine Technical Report 34.
- Olsen, Stephen, Donald D. Robadue, Jr., and Virginia Lee. 1980. An Interpretive Atlas of Narragansett Bay. Coastal Resources Center. URI Marine Bulletin 40.
- Otvos, E. G., and G. A. Carter, 2008. Hurricane degradation-barrier development cycles, northeastern Gulf of Mexico: landform evolution and island chain history. *Journal of Coastal Research* 24-2, 463- 478.
- Riggs, S.R. and D.V. Ames, 2007. Effect of storms on barrier island dynamics, Core Banks, Cape Lookout National Seashore, North Carolina, 1960-2001. U.S. Geological Survey Scientific Investigations Report 2006-5309, 78 p.
- Robadue, Donald, and Virginia Lee. 1980. Upper Narragansett Bay: An Urban Estuary in Transition. Coastal Resources Center. URI Marine Technical Report 79.
- Sallenger, A.S., C.W. Wright, and J. Lillycrop, 2007. Coastal-change impacts during Hurricane Katrina: an overview. In: *Proceedings Coastal Sediments '07* [N.C. Kraus and J.D. Rosati (eds.)]. America Society of Civil Engineers, Reston, VA.
- Schueler, T. R.. 1987. *Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs*. Washington, DC: Metropolitan Washington Council of Governments.
- Schueler, Thomas R.. 1992. *A Current Assessment of Urban Best Management Practices: Techniques for Reducing Non-Point Source Pollution in the Coastal Zone*. Washington, DC: Department of Environmental Programs, Anacostia Restoration Team, Metropolitan Washington Council of Governments. Prepared for the U.S. Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds. March.
- Seavey, George L. 1975. Rhode Island'd Coastal Natural Areas: Priorities for Protection and Management. Coastal Resources Center. URI Marine Technical Report 43.
- Seavey, George L., and S.D. Pratt. 1979. The Disposal of Dredged Material in Rhode Island: An Evaluation of Past Practices and Future Options. Coastal Resources Center, URI Marine Technical Report 72.
- Sedgwick, Stephen, Clarkson Collins, and Stephen Olsen. 1980. Commercial Fishing Facilities Needs in Rhode Island. Coastal Resources Center. URI Marine Technical Report 80.
- State of Rhode Island, Statewide Planning Program. 1976. Plan for Recreation, Conservation and Open Space.
- _____1980. Coastal Community Land Use Review. Technical Paper 82.
- State of Rhode Island, Department of Environmental Management 1982. A Guide to Land Resources Permits.

Rhode Island Coastal Resources Management Program

_____ 1983. Open Space Preservation in Rhode Island, An Inventory of Significant Sites.

_____, and the Regional Land Program, Inc. 1983. Building at the Shore, A Handbook for Residential Development on the Rhode Island Coast.

Maps of Water Use Categories

Watch Hill to Little Compton and Block Island

The Coastal Resources Management Council has developed Geographic Information System town-based water use category maps to replace U.S. Geological Survey 7.5 minute series quadrangle-based maps originally adopted in the 1980's. The new maps depict all water type changes approved by the Council to date and are superimposed on 2008 aerial images that allow users to more easily determine the CRMC water type adjacent to their property. The new town-based GIS water type maps comprise the state's shoreline from Watch Hill to Little Compton including Narragansett Bay and its islands and Block Island.

Water Use Category

- Type 1 – Conservation Areas (Section 200.1)
- Type 2 – Low-Intensity Use (Section 200.2)
- Type 3 – High-Intensity Boating (Section 200.3)
- Type 4 – Multipurpose Waters (Section 200.4)
- Type 5 – Commercial and Recreational Harbors (Section 200.5)
- Type 6 – Industrial Waterfronts (Section 200.6)

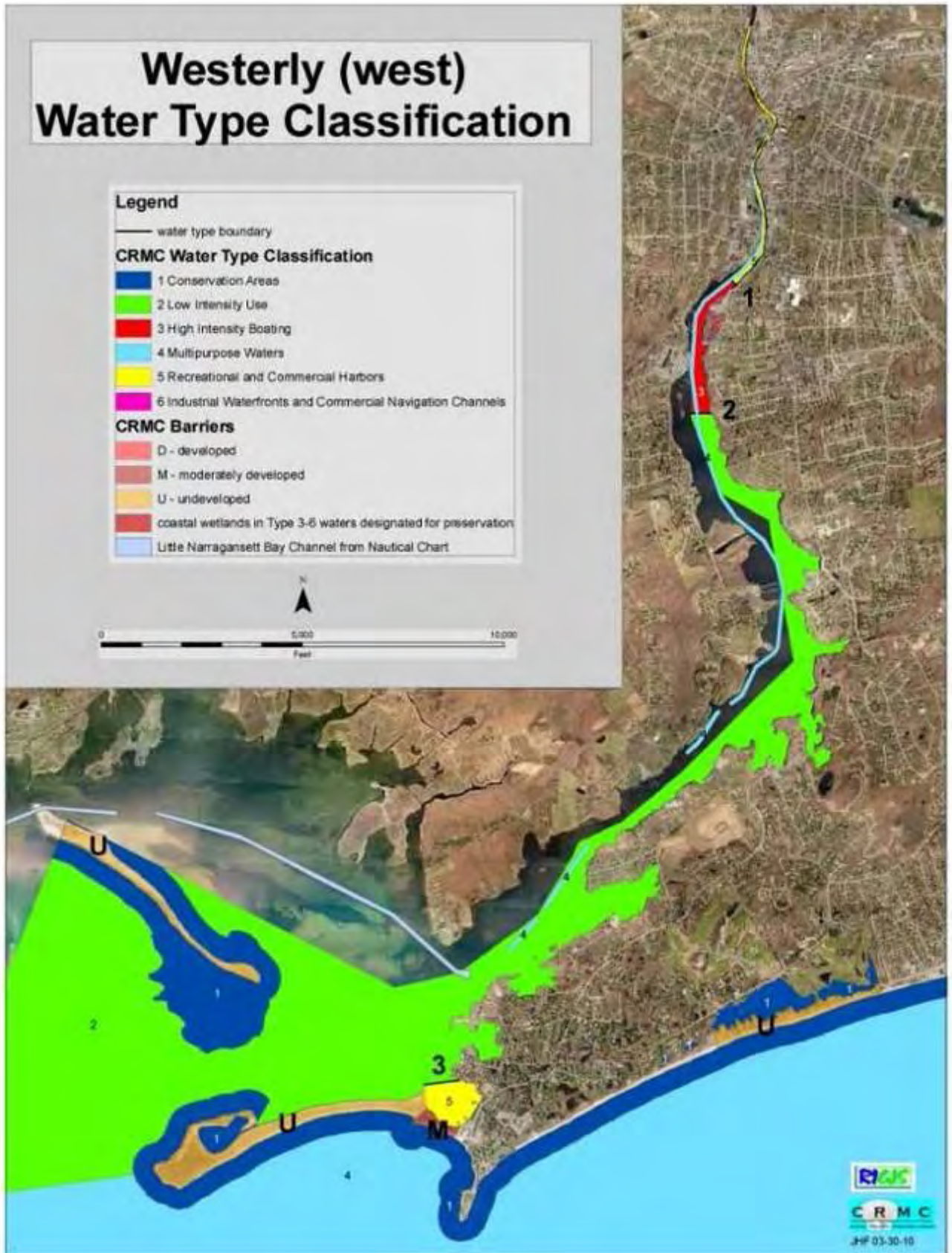
The purpose of these maps is to determine the applicable water types and pertinent sections of the Council's regulatory programs that will be applied to coastal properties and projects. Large bold numerals on the water type maps designate boundary lines separating different water use categories. Unless otherwise noted on the maps or described in the accompanying boundary line text, the water type along any shoreline generally runs parallel to the shoreline and extends 500 feet seaward from the mean high water mark.

The Council's water use category maps are available as PDF files by municipality and GIS shape files will be available for download on the RIGIS website. The maps can be examined at the CRMC office in Wakefield, at the Secretary of State's office or website, and on-line at the CRMC website: http://www.crmc.ri.gov/maps/maps_wateruse.html

Westerly

- 1 A straight line extension of the northern boundary of Viking Marina.
- 2 A straight line extension of the south side of the industrially zoned area.
- 3 A straight line across the entrance to Watch Hill Cove from an extension of the western side of Meadow Lane to the tip of the jetty on the north side of Napatree Beach.
- 4 Straight line extensions of the outsides of each of the two jetties at the breachway entrance to Winnapaug Pond.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_westerly.html





Charlestown

- 5 Straight line extensions of the outsides of each of the two jetties at the breachway entrance to Quonochontaug Pond.
- 6 A straight line along the west side of East Beach Road.
- 7 A straight line along the Ninigret Pond shoreline across the entrance to Foster Cove.
- 8 Straight line extensions of the outsides of each of the two jetties at the breachway entrance to Ninigret Pond.

Ninigret Pond

Straight line from westernmost point of Ninigret Wildlife Refuge to westernmost point of Ninigret Conservation Area (from point at approximately 100,489N/279,600E to 95,367N/275,649E RIspf83). Straight line from eastern edge of Ninigret Wildlife Refuge running south to the northeastern point of Lot 2 of the Charlestown Assessors map #8, located on the barrier spit (from point approximately 102,669N/286029E to 99,342N/287,795E RI spf83). The waters between these lines and bounded by the shoreline of the pond are Type 1. (Adopted by Council January 22, 2008)

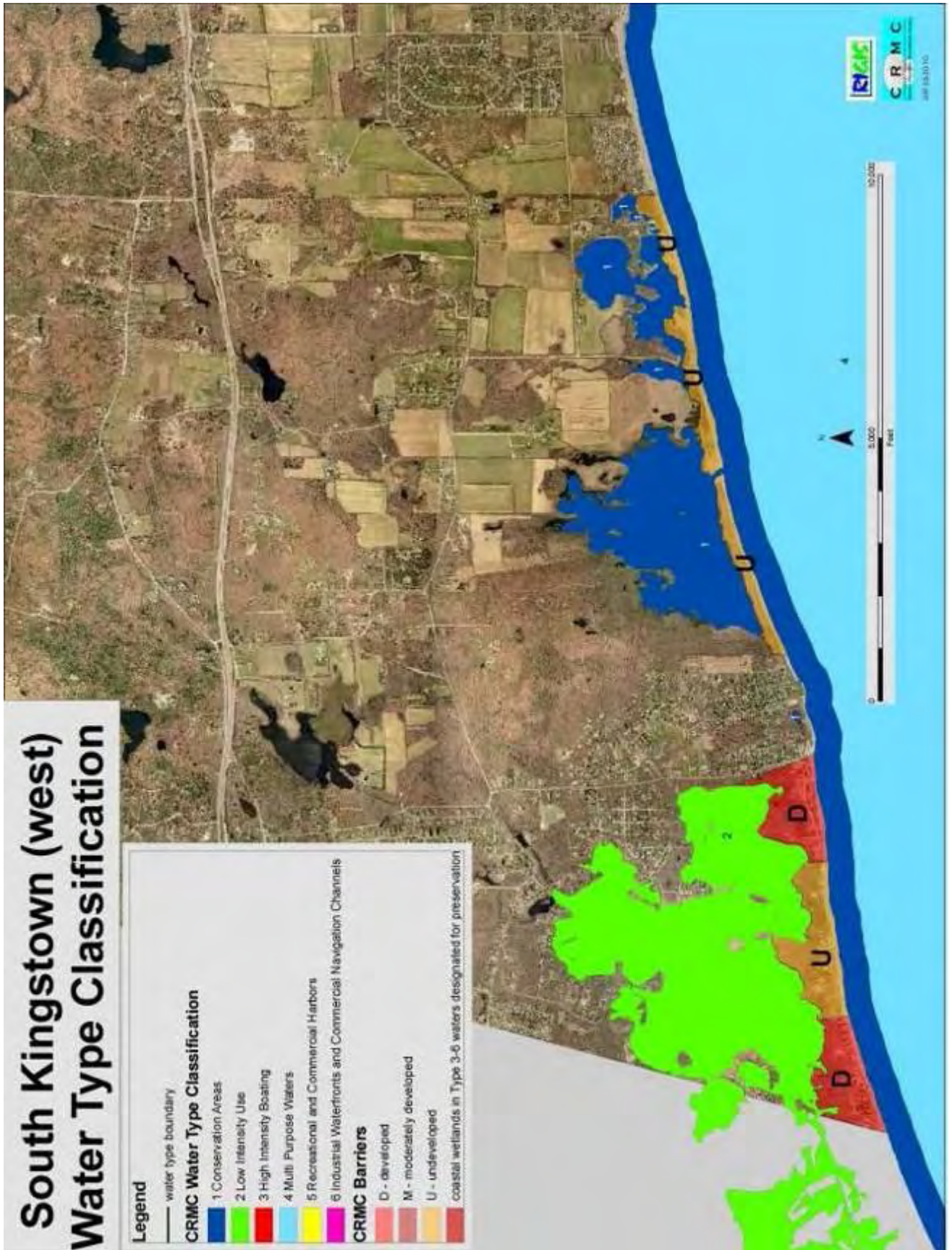
Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_charlestown.html

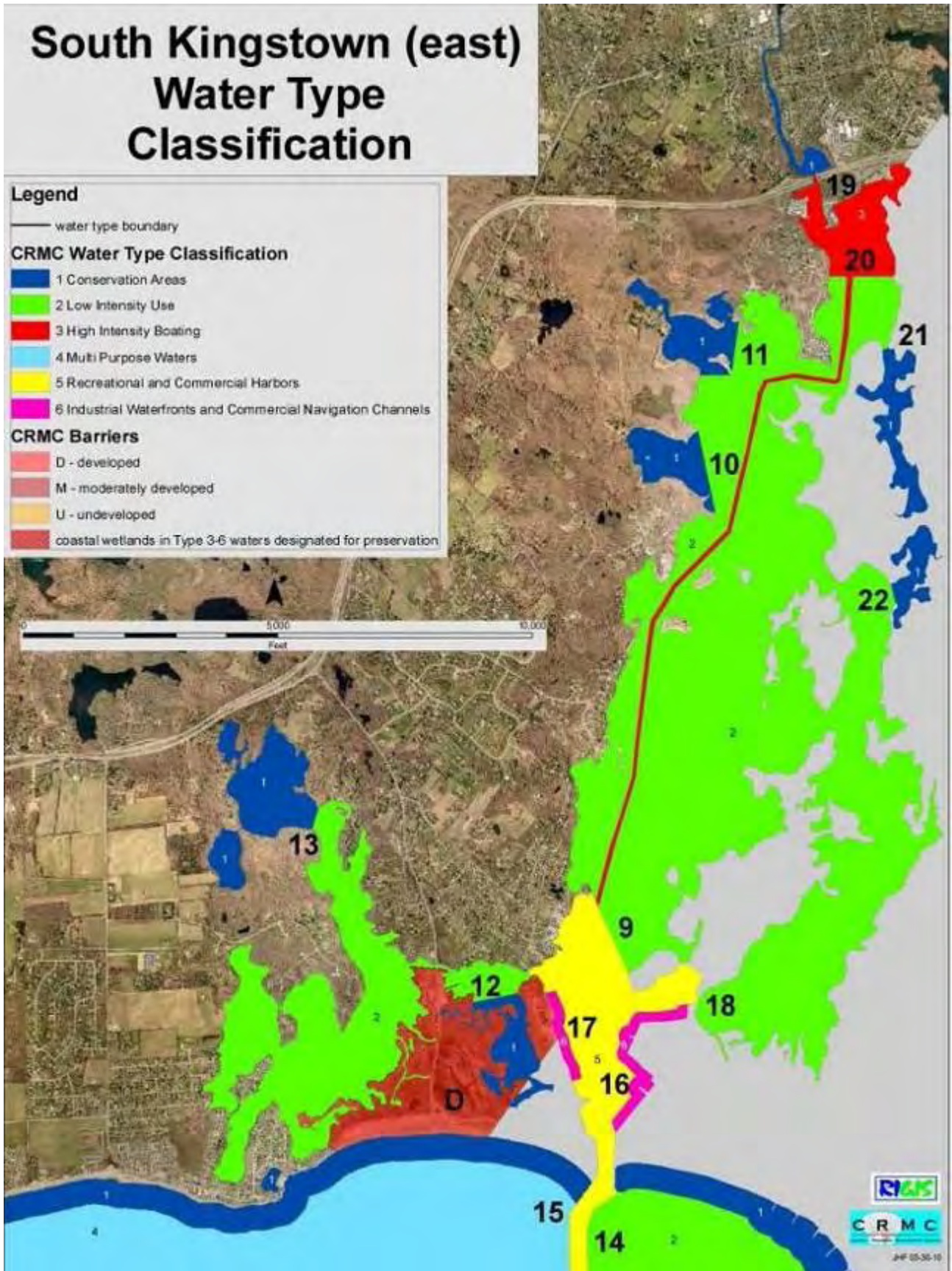


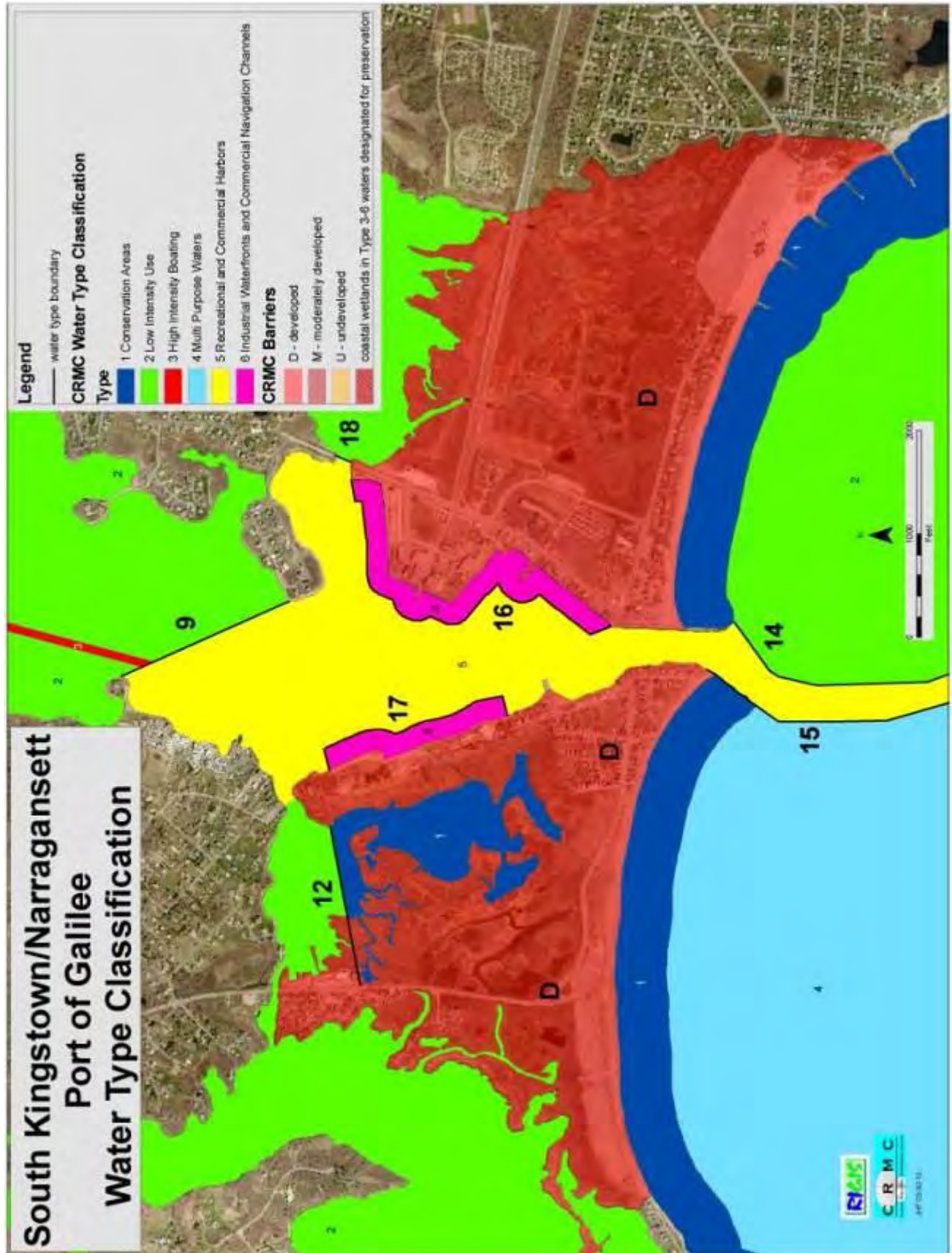
South Kingstown

- 9 A straight line running from the most western tip of Little Comfort Island to the most eastern tip of High Point.
- 10 A straight line across Smelt Brook Cove from the eastern tip of Buttonwoods Point to the eastern tip of Crown Point.
- 11 A line across Congdon Cove from the southern tip of the peninsula on the west side of Billington Cove to the southeastern tip of Cummock Island; thence turning due westerly until it touches the mainland on the south side of Congdon Cove.
- 12 A straight line running generally westerly from the border between the RL80 and open-space zones on Gooseberry Island to the border between the open-space and commercial zones south of the Kenport Marina.
- 13 A straight line running from a southern tip of land now or formerly of Collins/Bassett/Murray to the most easterly side of a small salt marsh on land now or formerly of Woodcock/ Robertson/McCall.
- 17 A line running generally northerly along the Jerusalem shoreline 200 feet into the pond and parallel to state-owned property. See Salt Ponds Region SAMP 930.1.B.3.
- 19 A line across the northernmost side of the Route 1 bridge.
- 20 A straight line running from west to east through the center of Nun buoy #24.
- 23 A straight line across the entrance to the Narrow River from the south side of Clump Rocks to the tip of the Narragansett Beach barrier spit.
- 24 A straight line across the entrance to Pettaquamscutt Cove from the northernmost tip of land at Little Neck West of the Sprague Bridge, thence generally northwesterly, touching the northeastern border of the wetland called "sedge beds", thence continuing straight to where it meets land on the northern part of the cove entrance.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_southkingstown.html







South Kingstown Narrow River Water Type Classification

Legend

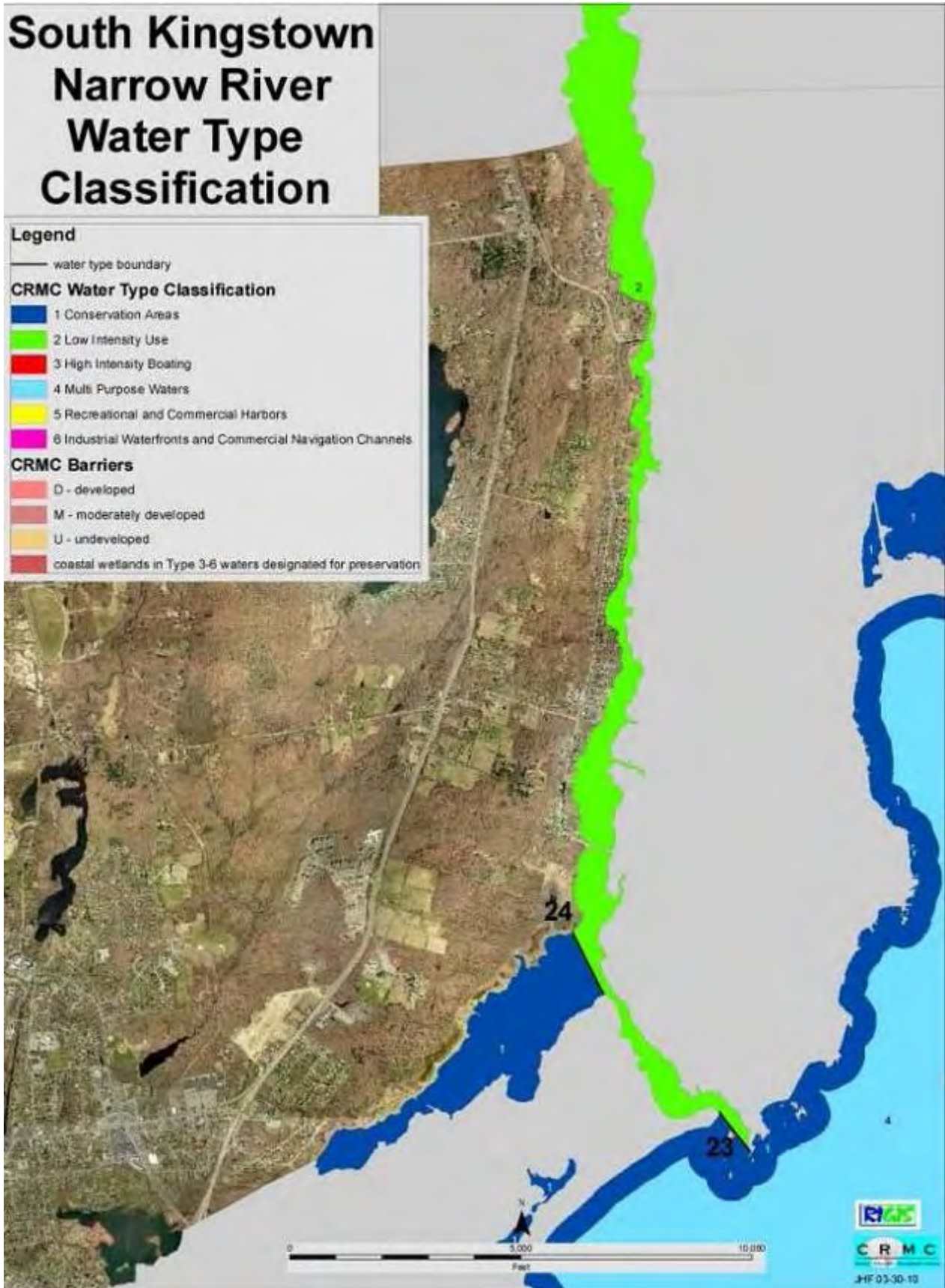
— water type boundary

CRMC Water Type Classification

- 1 Conservation Areas
- 2 Low Intensity Use
- 3 High Intensity Boating
- 4 Multi Purpose Waters
- 5 Recreational and Commercial Harbors
- 6 Industrial Waterfronts and Commercial Navigation Channels

CRMC Barriers

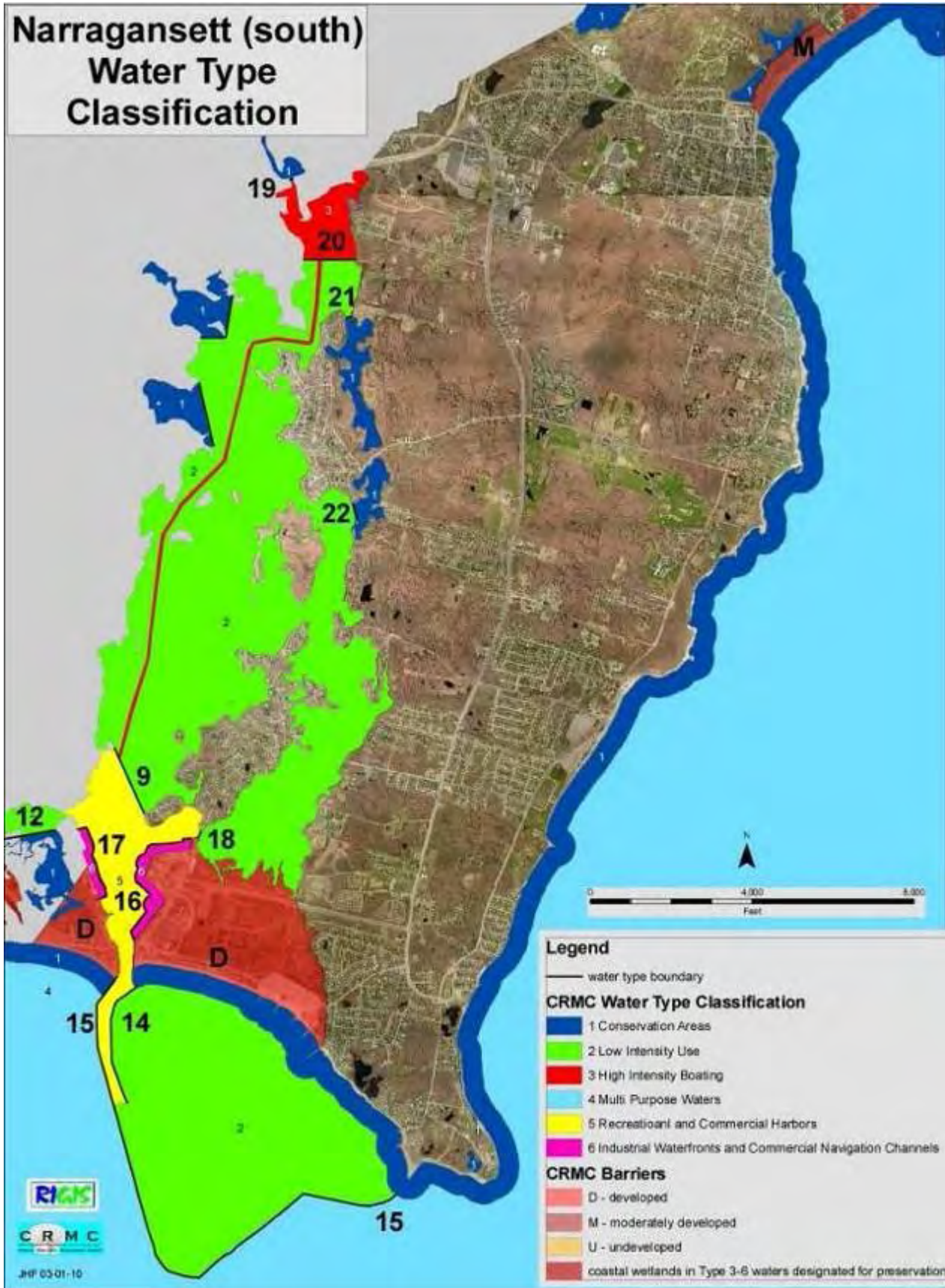
- D - developed
- M - moderately developed
- U - undeveloped
- coastal wetlands in Type 3-6 waters designated for preservation



Narragansett

- 9** A straight line running from the most western tip of Little Comfort Island to the most eastern tip of High Point.
- 14** A line running southerly from the southern end of the eastern jetty of the Point Judith Pond breachway and following the eastern side of the navigation channel, as designated by the U.S. Army Corps of Engineers, to the East Gap of the Harbor of Refuge. See Salt Ponds Region SAMP 930.1.B.3.
- 15** A line running generally southerly along the seaward side of the jetties and breakwater of the Harbor of Refuge. See Salt Ponds Region SAMP 930.1.B.3.
- 16** A line running generally northerly and then westerly 200 feet into the pond and parallel to the Galilee bulkhead to the southwestern end of the Great Island Bridge. See Salt Ponds Region SAMP 930.1.B.3.
- 17** A line running generally northerly along the Jerusalem shoreline 200 feet into the pond and parallel to state-owned property. See Salt Ponds Region SAMP 930.1.B.3.
- 18** A line along the eastern side of the bridge between Galilee and Great Island.
- 20** A straight line running from west to east through the center of Nun buoy #24.
- 21** A straight line across the inlet to Long Cove at its most narrow point.
- 22** A straight line across the inlet to Champlin Cove from the tip of Cedar Point to the southernmost point on Harbor Island.
- 23** A straight line across the entrance to the Narrow River from the south side of Clump Rocks to the tip of the Narragansett Beach barrier spit.
- 24** A straight line across the entrance to Pettaquamscutt Cove from the northernmost tip of land at Little Neck West of the Sprague Bridge, thence generally northwesterly, touching the northeastern border of the wetland called "sedge beds", thence continuing straight to where it meets land on the northern part of the cove entrance.
- 25** A straight line extension of the south side of Bonnet Shores Road.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_narragansett.html



Narragansett (north) Water Type Classification

Legend

— water type boundary

CRMC Water Type Classification

- 1 Conservation Areas
- 2 Low Intensity Use
- 3 High Intensity Boating
- 4 Multi Purpose Waters
- 5 Recreational and Commercial Harbors
- 6 Industrial Waterfronts and Commercial Navigation Channels

CRMC Barriers

- D - developed
- M - moderately developed
- U - undeveloped
- coastal wetlands in Type 3-6 waters designated for preservation



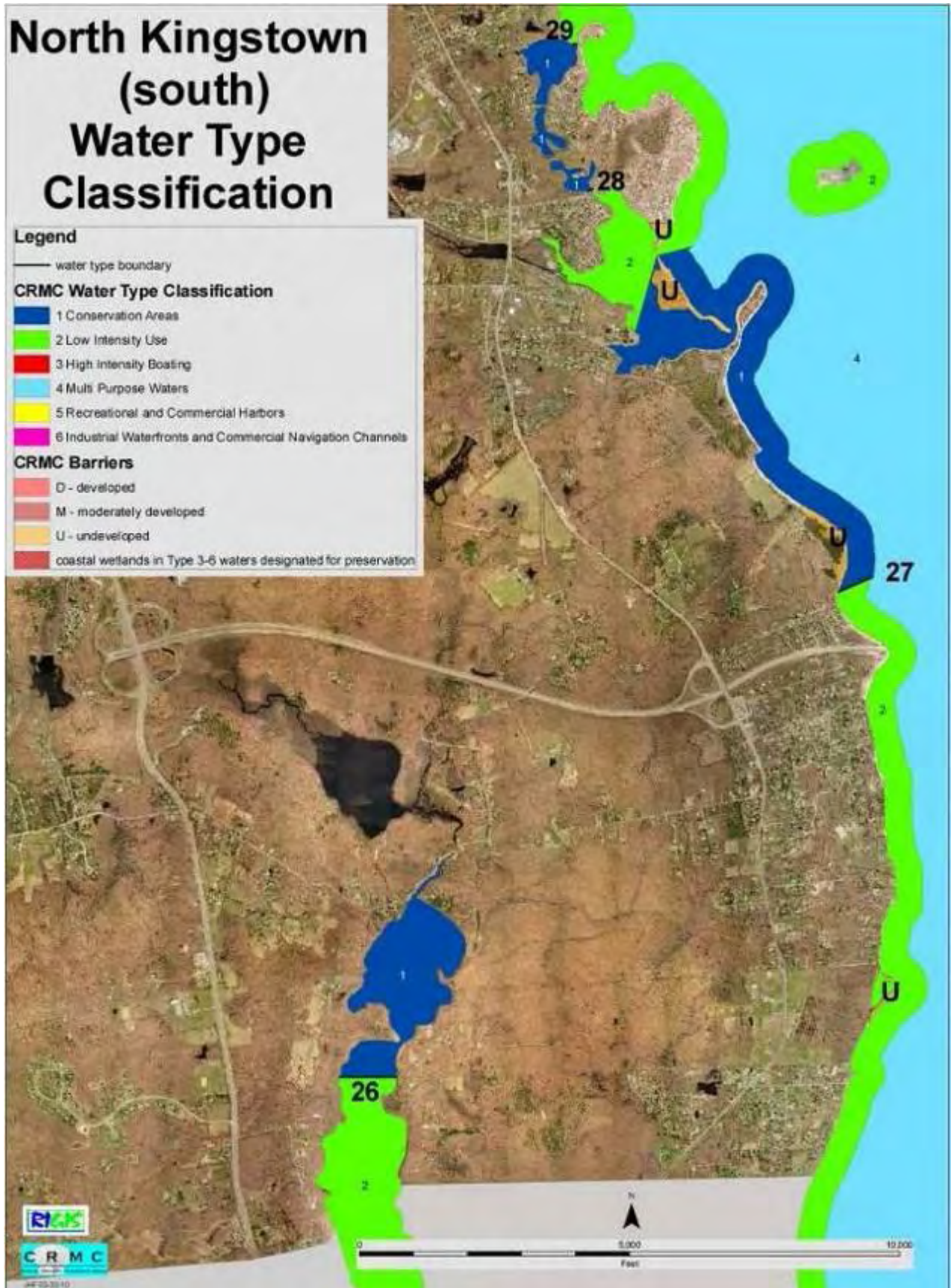
North Kingstown

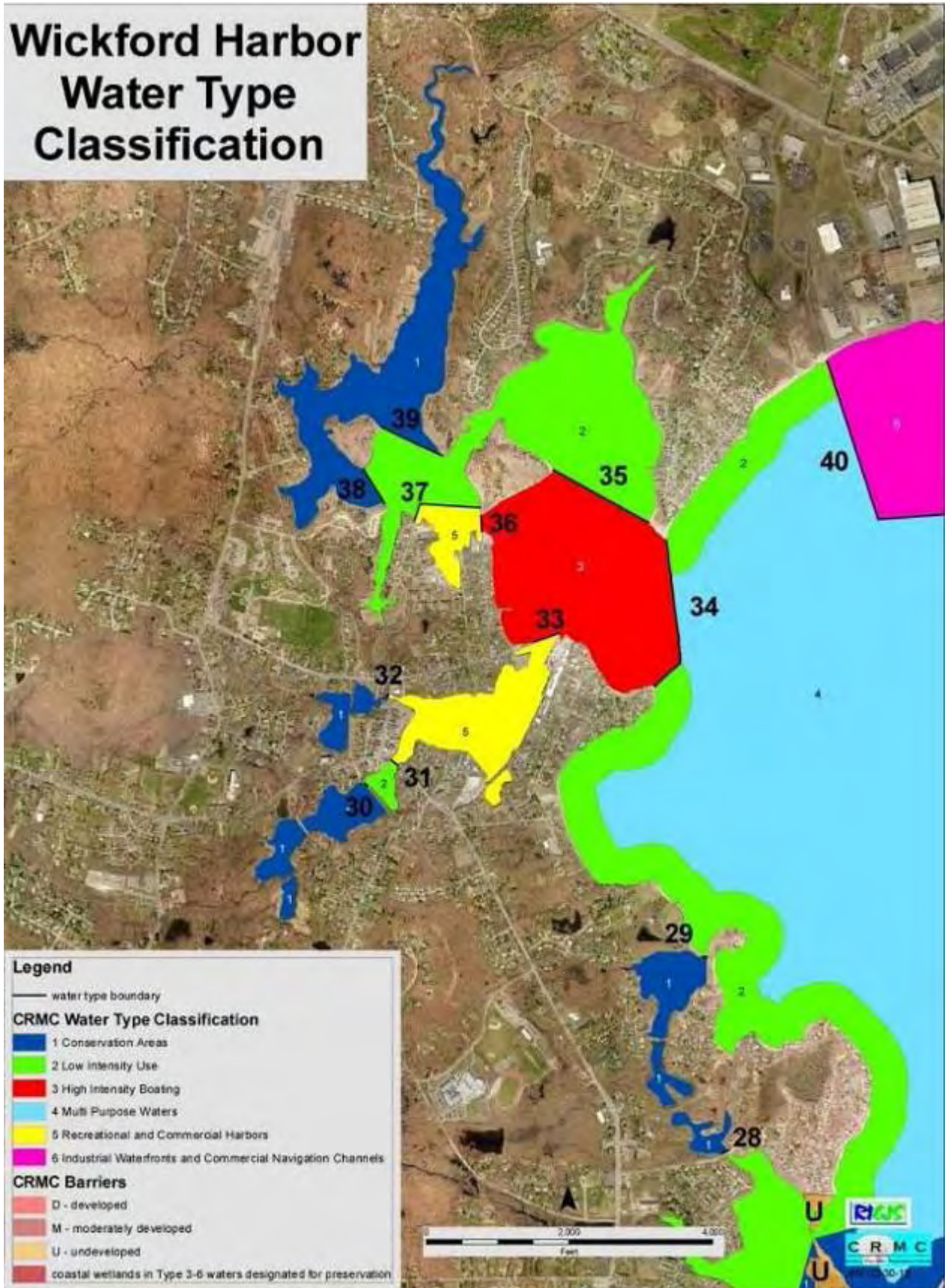
- 26 A straight line extension of the southern border of the open-space zone on the east side of the Pettaquamscutt River.
- 27 A straight line extension of the boundary between the RL and RH zones.
- 28 A straight line along the north side of Waldron Avenue.
- 29 A straight line across the entrance to Duck Cove at its narrowest point from the northern side of the small peninsula, running generally southeasterly to where it meets the opposite shore on Little Tree Point.
- 30 A straight line across the southwestern side of the old railroad causeway.
- 31 A line along the south side of Hussey Bridge.
- 32 A line along the western side of the bridge on Brown Street.
- 33 A straight line across the entrance to Wickford Cove from the tip of Big Rock Point to the tip of the northern peninsula at the end of West Main Street.
- 34 A line along the western side of the breakwater from Sauga Point, running across the entrance channel to Wickford Harbor and along the western side of the breakwater from Poplar Point.
- 35 A straight line from the base of the breakwater at Sauga Point to the eastern tip of Cornelius Island.
- 36 A straight line extension of Pleasant Street
- 37 A straight line extension of the northeast side of Enfield Avenue.
- 38 A straight line from the southern tip of Rabbit Island to the western side of the launching ramp at Long Point.
- 39 A straight line from the northeast side of Rabbit Island to the tip of Calf Neck.
- 40 A straight line extension from the end of the fence separating former Navy lands from private lands, extending offshore 2,000 feet, then turning generally easterly and running to a point where it meets the southern side of the Navy channel.
- 41 A line along the east bulkhead wall in the small embayment on the south side of the Allen Harbor entrance channel to where it meets the opposite shore.
- 42 A straight line from the northern boundary of Navy property.
- 43 A straight line from the northern end of Narragansett Street.
- 44 A straight line from the southeast tip of Marsh Point to the tip of Pojac Point.

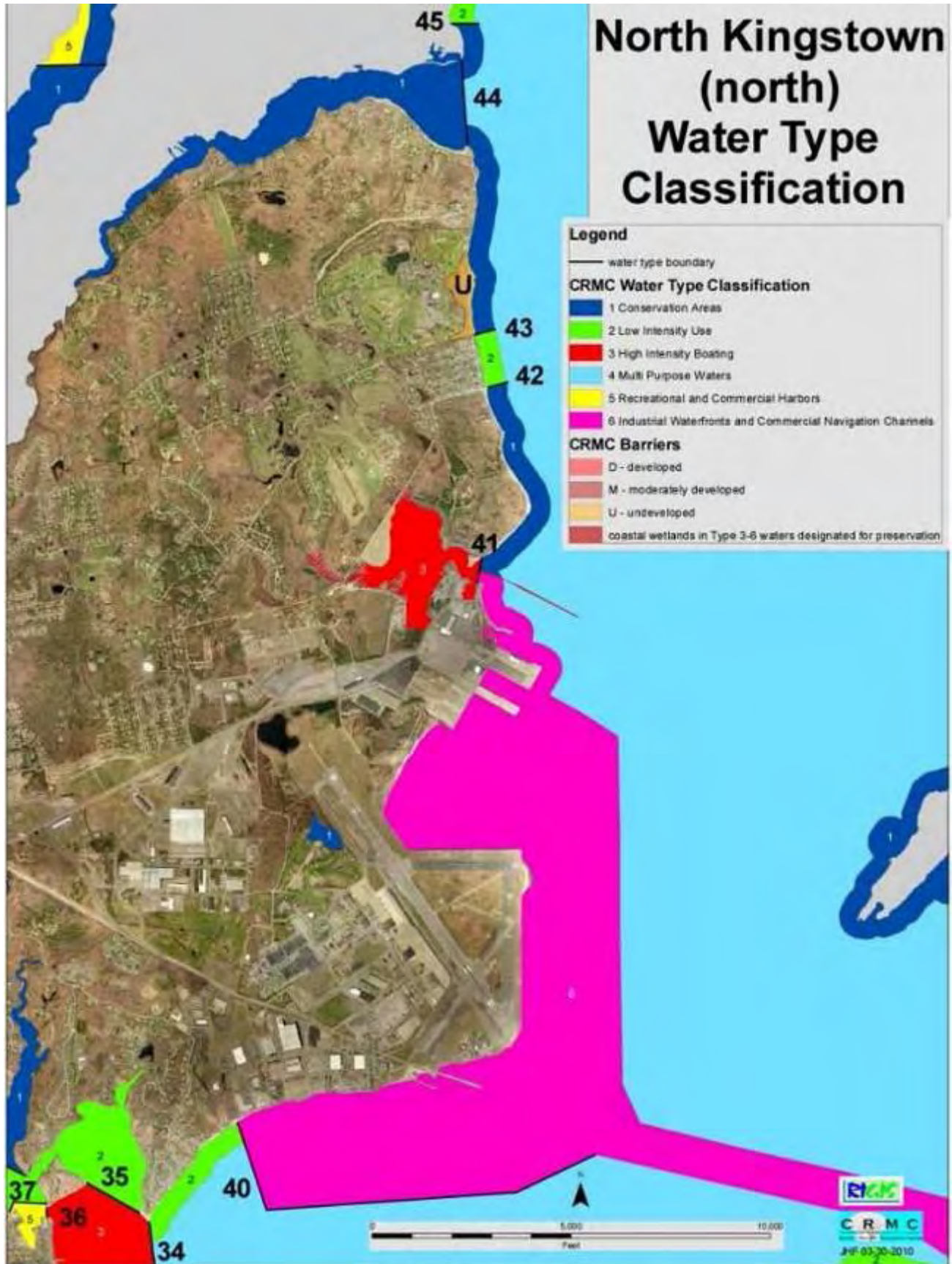
Bissel Cove

Straight line extension perpendicular to shore at northernmost boundary of Bissel Cove DEM property (from point at approximately 170,087N/347,011E to 170,261N/347,659E RIspf83). Straight line extending from northernmost boundary on western side of Bissel Cove DEM property southwesterly to a shoreline point at the end of Shady Cove Road (from point at approximately 170,085N/346,999E to 168,678N/346,603E RIspf83). The area east of these lines and bounded by the shoreline and line 27 are Type 1 waters. (Adopted by the Council January 22, 2008)

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_northkingstown.html







East Greenwich

- 49** A straight line running due east from the south side of the East Greenwich Town Dock property across Greenwich Cove to where it intersects with land at Goddard State Park.
- 50** A straight line from the tip of Long Point at Goddard Park westerly to the opposite shoreline and intersecting the most northeasterly corner boundary of the Marina Perimeter Limit of Norton's Marina authorized under CRMC Assent 2002-05-005. The corner boundary coordinate is 212,929N/343,158E RIspf83. (Adopted by the Council on April 7, 2009)

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_eastgreenwich.html

Warwick

- 44 A straight line from the southeast tip of Marsh Point to the tip of Pojac Point.
- 45 A straight line from the end of Bradford Avenue.
- 46 A straight line across the creek entrance south of Sandy Point.
- 47 A straight line along the western side of Beachwood Drive.
- 48 A straight line extending northerly from the eastern border of Goddard State Park.
- 49 A straight line running due east from the south side of the East Greenwich Town Dock property across Greenwich Cove to where it intersects with land at Goddard State Park.
- 50 A straight line from the tip of Long Point at Goddard Park westerly to the opposite shoreline and intersecting the most northeasterly corner boundary of the Marina Perimeter Limit of Norton's Marina authorized under CRMC Assent 2002-05-005. The corner boundary coordinate is 212,929N/343,158E RIspf83. (Adopted by the Council on April 7, 2009)
- 51 A straight line from the tip of Cedar Tree Point to the south side of the breakwater at Folly's Landing.
- 52 A straight line from the base of the westernmost groin at Oakland Beach to the base of the easternmost groin on Buttonwood Point.
- 53 A straight line from the northern side of the end of Randall Street to the base of the easternmost groin at Oakland Beach.
- 54 A straight line extension of Lippitt Avenue.
- 55 A straight line extension of Talcott Street.
- 56 A straight line running from a point of land on the south side of Occupasstuxet Cove to the tip of the peninsula on the east side of the cove.
- 57 A straight line extension from the south side of a launching ramp facility on the northern side of Passeonquis Cove.
- 58 The northern side of the rubble-mound connector running easterly from the northeast tip of Salter Grove to the Pawtuxet Cove breakwater.
- 59 A straight line running northwesterly from the easterly side of the Pawtuxet Cove breakwater to the tip of Pawtuxet Neck.
- 60 The base of the falls at the Pawtuxet River.

Within Line 53 (Warwick Cove) – adopted by the Council on October 26, 2004

Type 2 Waters

- A. (West side of Warwick Cove, west of Second Point) Starting at the northwest corner of Plat 359, lot 50/northeast corner of Plat 359, lot 51 (222,776N/356,740E RIspf83), then northerly following the high water line approximately 2450 feet to the southeast corner Plat 359, lot 122/southwest corner Plat 359, lot 183 (222,843N/357,051E RIspf83), then 318 feet westerly to the first point.
- B. (Northeastern side of Warwick Cove) A one hundred foot (100') wide by approximately 7450 feet long area starting at the southeast corner of Plat 358, lot 321/southwest corner of Plat 358, lot 482 (223,928N/358,937E RIspf83) then follow the high water line easterly, then southwest to the northwest corner of Plat 358, lot 6/southwest corner of Plat 358, lot 7 (222,808N/358,430E RIspf83), then west to point 222,780N/358,330E RIspf83, then northerly parallel to the shoreline approximately 435 feet to the mooring area at 223,129N/358,368E RIspf83, then southerly 24 feet along the mooring area to 223,108N/358,378E RIspf83, then northeasterly 109 feet along the mooring area to 223,166N/358,469E RIspf83, then northerly

parallel to the shoreline to the federal channel at 224,406N/360,112E RIspf83, then northerly 53 feet along the federal channel to 224,449N/360,084E RIspf83, then southwesterly 21 feet along the federal channel to 224,439N/360,068E RIspf83, then westerly parallel to the shoreline to the mooring field at 223,896N/359,169E RIspf83, then westerly along the mooring field to 223,864N/359,115E RIspf83, then westerly parallel to the shoreline to 223830N/358962E RIspf83, then northerly to the first point.

C. (East side of Warwick Cove) Starting at the east shore of Warwick Cove at point 220,333N/358,356E RIspf83, then 180 feet west to point 220,343N/358,175E RIspf83, then northwesterly for 535 feet to point 220,475N/357,656E RIspf83, Then northerly 142 feet to point 220,607N/357,610E RIspf83, then easterly approximately 150 feet to the high water line between plat 377, lots 152 and 153 (~220,633N/357,753E RIspf83), then follow the high water line easterly for approximately 1100 feet to the first point.

Within Line 51 (Apponaug Cove) – adopted by the Council on October 26, 2004

Type 1 Waters

A. (West side of Apponaug Cove at Mary's Creek) Starting on Plat 365, lot 278 at point 220,782N/ 342,433E RIspf83, follow the high water line southerly along the shoreline, through Mary's Creek and along the barrier to point 220,003N/341,760E RIspf83 on Plat 366, lot 4, then 672 feet east to point 220,005N/342,431E RIspf83, then 780 feet north to the first point.

Type 2 Waters

A. (East of Mary's Creek) Starting at the northeast corner of Plat 365 lot 278/southeast corner Plat 365 lot 172 (220,890N/342,530E RIspf83), follow southerly along the high water line for 145 feet to 220,782N/342,433E RIspf83, then south for 775 feet to 220,005N/342,431E RIspf83, then east for 505 feet to 220,005N/342,936E RIspf83, then northerly for 782 feet along the federal channel to 220,785N/342,982E RIspf83, then westerly to the first point.

B. (West side of Apponaug Cove) Start at the northeast corner of Plat 365, lot 279/northwest corner of Plat 365, lot 277 (221,768N/342,348E RIspf83), then follow the high water line northerly along Plat 365, lot 279 for approximately 1500 feet to point 222,369N/341,326E RIspf83, then back to the first point.

C. (East side of Apponaug Cove) A one hundred foot (100') wide by approximately 6500 feet long area starting at the southwest corner of Plat 365, lot 219 (223,421N/340,958E RIspf83) then southeasterly following along the high water line to 220,508N/343,370E RIspf83 on Plat 367, lot 1, then west to 220,514N/343,261E RIspf83, then northerly parallel to the shore to the federal channel at point 223,227N/341,427E RIspf83, then 230 feet northerly along the federal channel to point 223,333N/341,227E RIspf83, then continue northerly parallel to the shoreline to point 223,421N/341,048E RIspf83, then west back to the first point.

Type 5 Waters

A. (Apponaug Cove west of the railroad bridge and culvert) Starting at the southern end of Plat 245, lot 378 (223,474N/340,784E RIspf83) then 137 feet southerly to the northeast corner of Plat 244, unnumbered lot at 223,337N/340,793E RIspf83, then follow the high water line approximately 5260 feet back to the first point.

Warwick (cont'd)

Baker's Creek

Type 1 Waters

Tidal waters bounded by Lot 201 in Plat 367 and Lots 114 and 116 in Plat 368 to a distance of 500 feet off shore. (Adopted by the Council on April 7, 2009)

Chepiwanoxet Point and Greenwich Cove

Type 1 Waters

Tidal waters bounded by Lots 11, 29, 83, and 94 in Plat 221 to a distance of 500 feet off shore. (Adopted by the Council on April 7, 2009)

Type 2 Waters

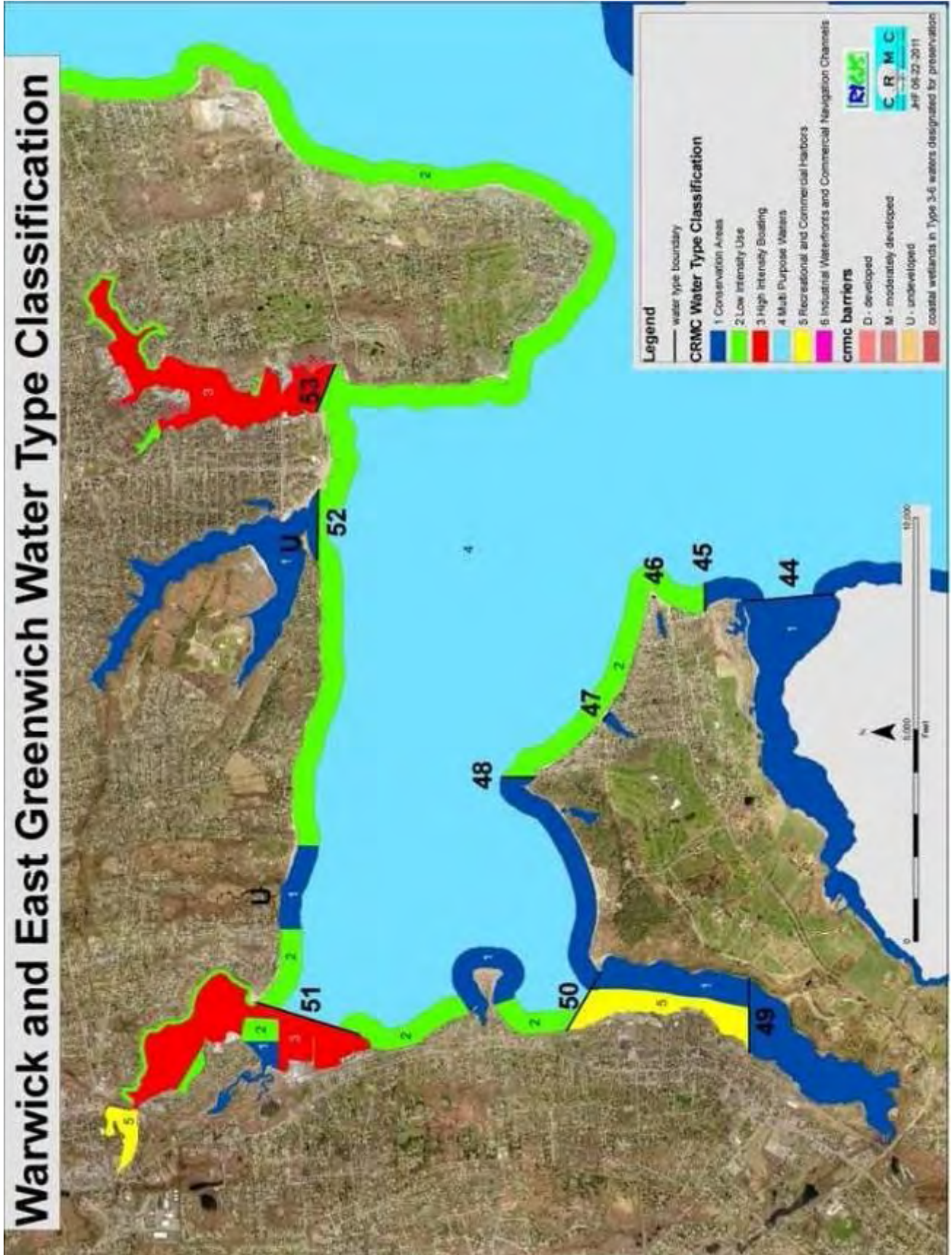
The existing Type 2 waters west of Chepiwanoxet Point shall extend southward until meeting the amended line delineating Type 5 waters. (Adopted by the Council on April 7, 2009)

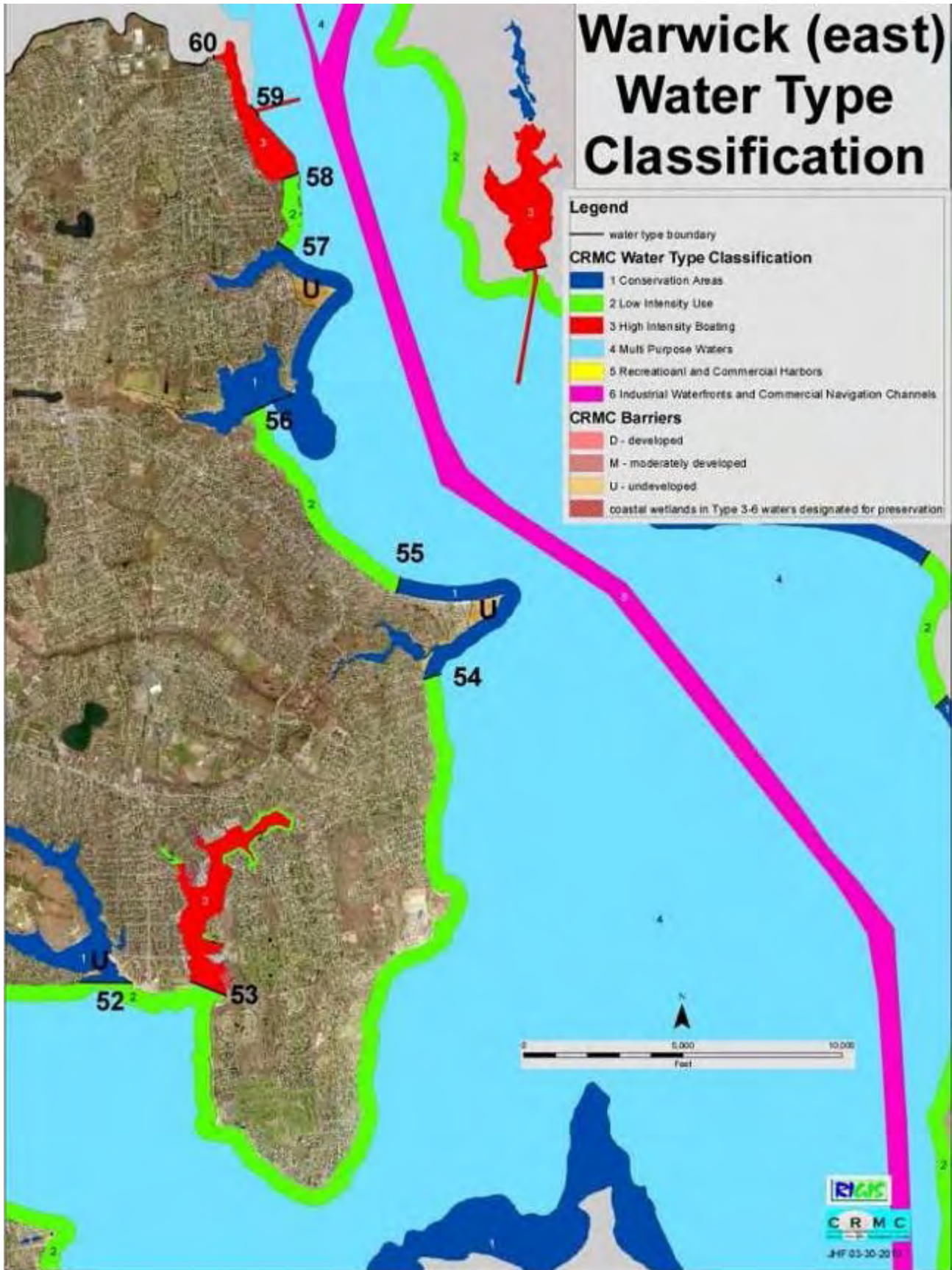
Type 5 Waters

Tidal waters bounded by line 50 to the north and line 49 to the south along the western shoreline of the cove.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_warwick.html

Warwick and East Greenwich Water Type Classification





Cranston

- 59** A straight line running northwesterly from the easterly side of the Pawtuxet Cove breakwater to the tip of Pawtuxet Neck.
- 60** The base of the falls at the Pawtuxet River.
- 61** From the southern side of the Port Edgewood breakwater, thence easterly to the dolphin on the east side of dredged access channel to Fields Point, then southeast to the southern boundary of the Mobil Oil Company property in East Providence.

Type 4 Waters

A line starting from the southern end of the Port Edgewood breakwater easterly and 500 feet offshore to include the cove immediately east of the Save the Bay center. (Adopted by the Council on September 25, 2007)

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_cranston.html

Providence

- 62** Upstream side of the Fox Point Hurricane Barrier.
- 63** The western side of the Park Street bridge over the Woonasquatucket River.
- 65** A straight line running WNW from the Union Oil property boundary with Bold Point Park in East Providence to the easterly boundary of the State of Rhode Island property (parcel 18-344) at India Point (Adopted by the Council on January 27, 2010).

Type 5 waters bounded between lines 62 and 63. Type 4 waters west (upstream) of Park Street bridge.

Type 1 Waters

Along the Providence shoreline of the Seekonk River from a point starting 250 feet north of the Narragansett Boat Club property (parcel 41-258) north to the Pawtucket city line and out to within approximately 50 feet of the existing federal channel. (Adopted by the Council on January 27, 2010)

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_providence.html

Pawtucket

64 The base of the falls at Main Street in the City of Pawtucket.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_pawtucket.html

East Providence

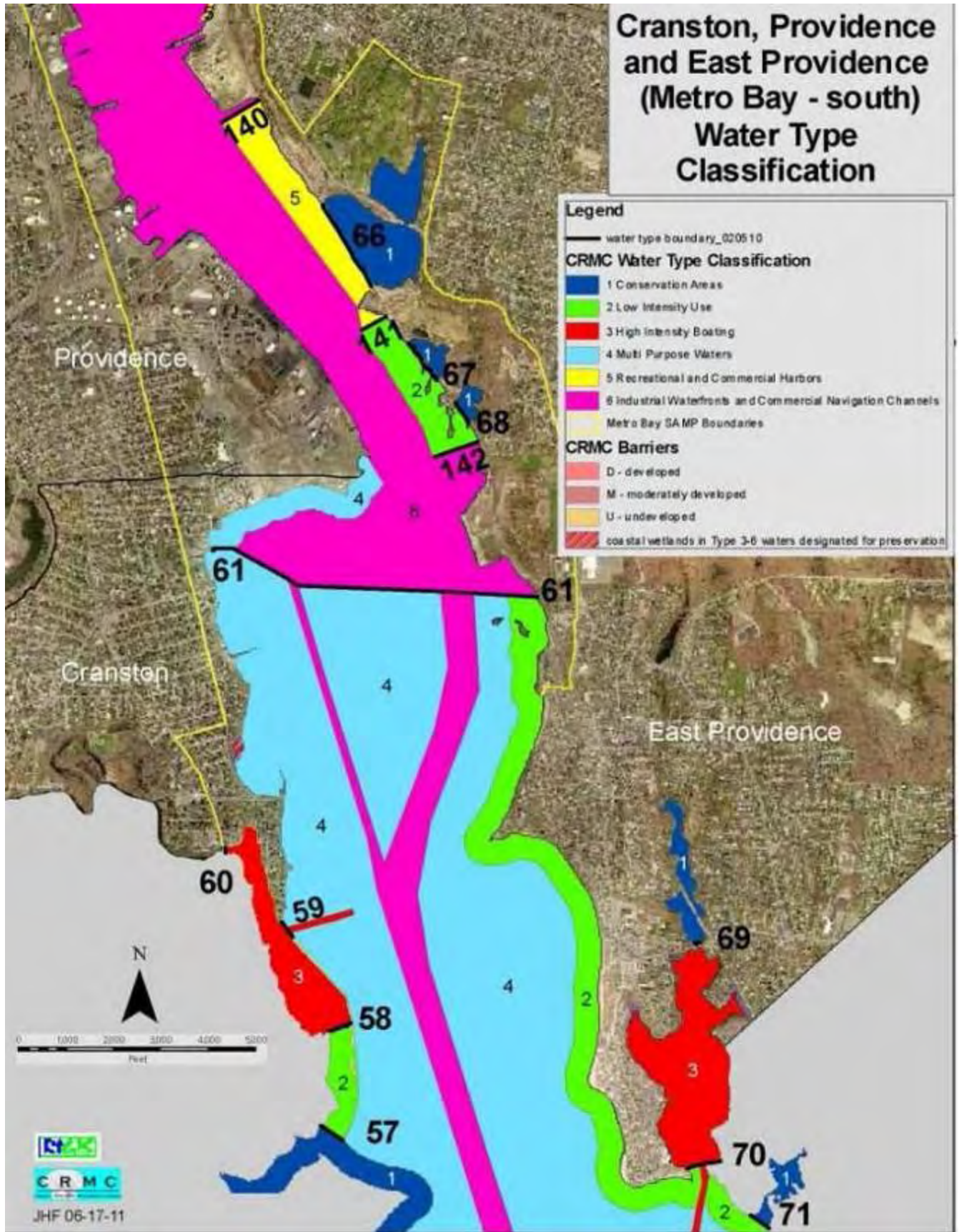
- 61** A straight line running generally westerly from the southern end of the Mobil Oil Company property to the dolphin on the east side of the dredged access channel to Fields Point, thence to the south side of the Port Edgewood breakwater in Providence.
- 65** A straight line running WNW from the Union Oil property boundary with Bold Point Park in East Providence to the easterly boundary of the State of Rhode Island property (parcel 18-344) at India Point. (Adopted by the Council on January 27, 2010)

Type 5 Waters – Bold Point

Tidal waters bounded by line 65 to the north then to 265, 719N/357,428E RIspf83 to 265,789N/357,602E RIspf83, thence running along the shoreline and out to a distance of 100 feet offshore. (Adopted by the Council on January 27, 2010)

- 66** The western edge of the former railroad causeway.
- 67** The western edge of the former railroad causeway.
- 68** The western edge of the former railroad causeway.
- 69** The northern side of the culverts and breachways under Crescent View Avenue.
- 70** A straight line along the southern bulkhead wall of Lavin's Marina, then straight across the channel to where it meets the spit on the western shore.
- 140** A straight line starting approximately 120 feet south of the existing Providence & Worcester quay (parcel 7-1-3) running WSW and more or less perpendicular to the federal channel out into the river ending approximately 120 from the federal channel. (Adopted by the Council on January 27, 2010)
- 141** A straight line starting at the boundary of parcels 109-1-1 and 109-1-3 running WSW and more or less perpendicular to the federal channel out into the river ending approximately 120 from the federal channel. (Adopted by the Council on January 27, 2010)
- 142** A straight line starting at the boundary of parcels 210-3-6 and 210-3-8 running West out into the river stopping approximately 120 from the federal channel. (Adopted by the Council on January 27, 2010)

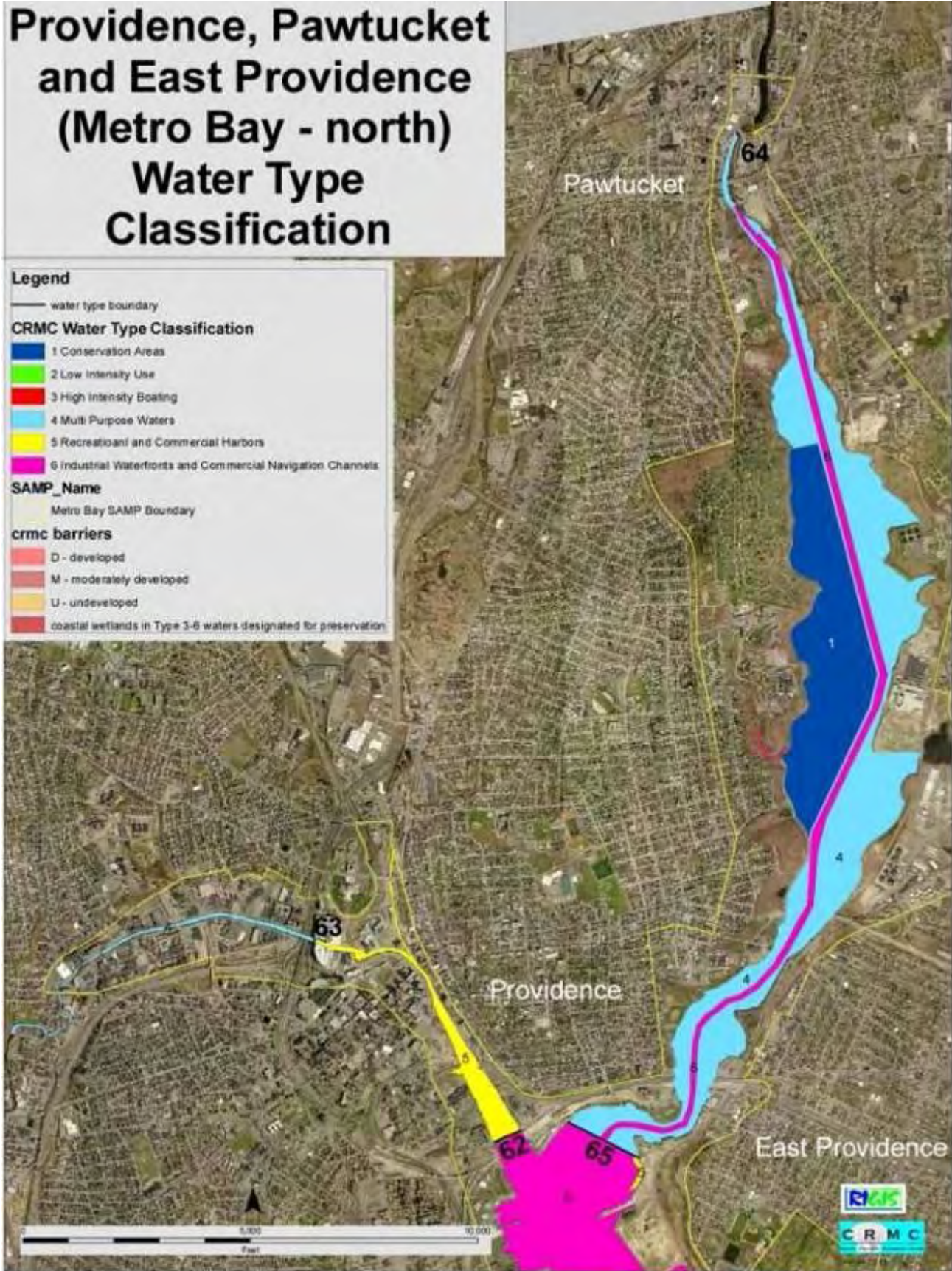
Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_eastprovidence.html



Providence, Pawtucket and East Providence (Metro Bay - north) Water Type Classification

Legend

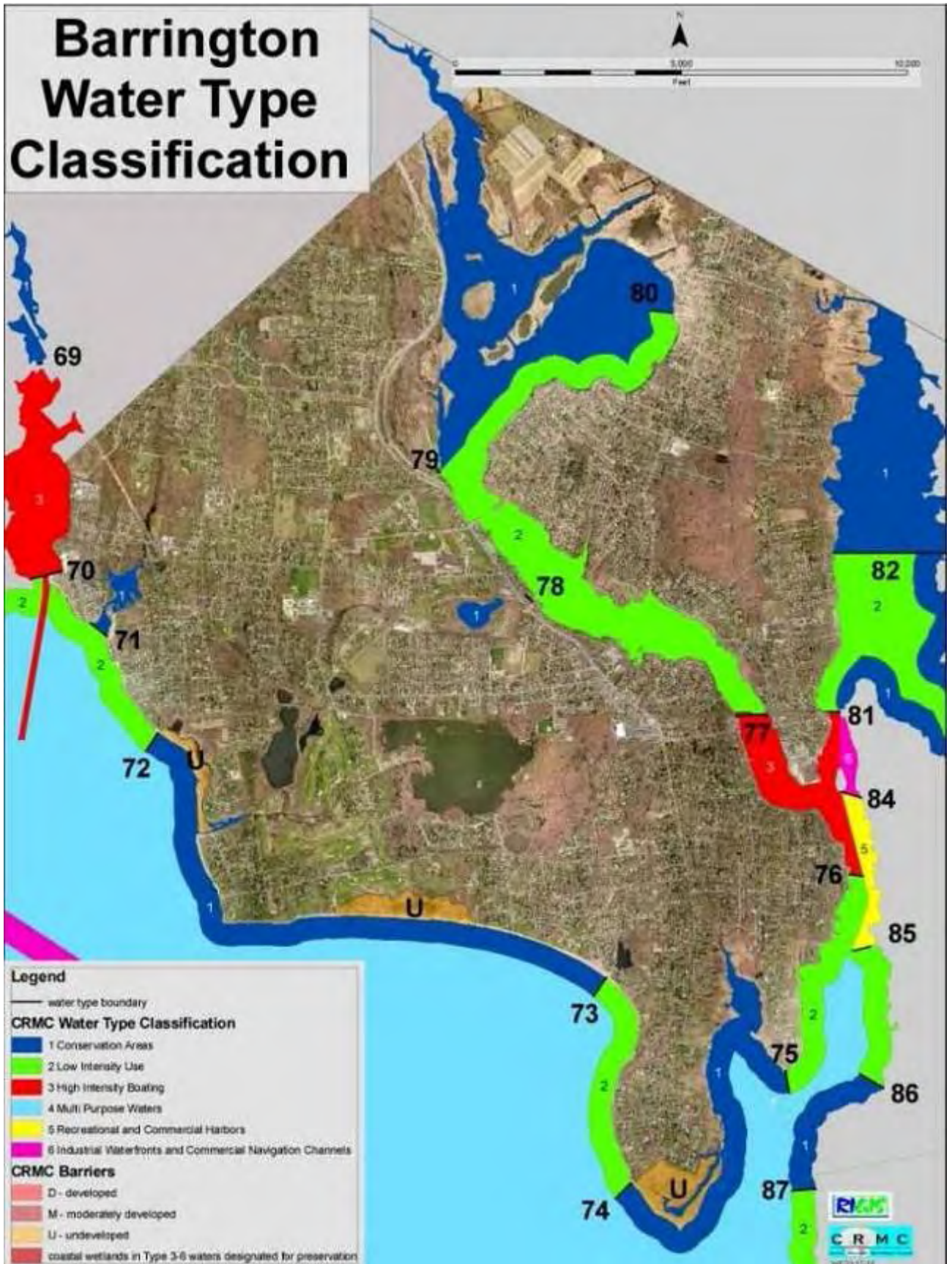
- water type boundary
- CRMC Water Type Classification**
- 1 Conservation Areas
- 2 Low Intensity Use
- 3 High Intensity Boating
- 4 Multi Purpose Waters
- 5 Recreational and Commercial Harbors
- 6 Industrial Waterfronts and Commercial Navigation Channels
- SAMP_Name**
- Metro Bay SAMP Boundary
- crmc barriers**
- D - developed
- M - moderately developed
- U - undeveloped
- coastal wetlands in Type 3-6 waters designated for preservation



Barrington

- 70 A straight line along the southern bulkhead wall of Lavin's Marina, then straight across the channel to where it meets the spit on the western shore.
- 71 A line from the southeastern end of Blanding Avenue running generally southeasterly across the channel to where it meets the end of Willow Way.
- 72 A line along the edge of a salt marsh at the end of Appian Way.
- 73 The outlet of a small pond and stream south of Beach Road.
- 74 The northwestern border of the salt marsh.
- 75 A straight line extension of Adam's Point Road.
- 76 A straight line extension of the south side of Ferry Lane.
- 77 Along the southern side of the old railroad causeway.
- 78 Along the westerly side of the Barrington River at the tidal creek entrance.
- 79 The tip of the small peninsula at the southern side of Walker Farm, Barrington.
- 80 A straight line extension of George Finnerty Road.
- 81 Along the southern side of the old railway causeway.
- 82 A straight line from the north side of the end of Stanley Avenue running due easterly to a point of land on the opposite shore.

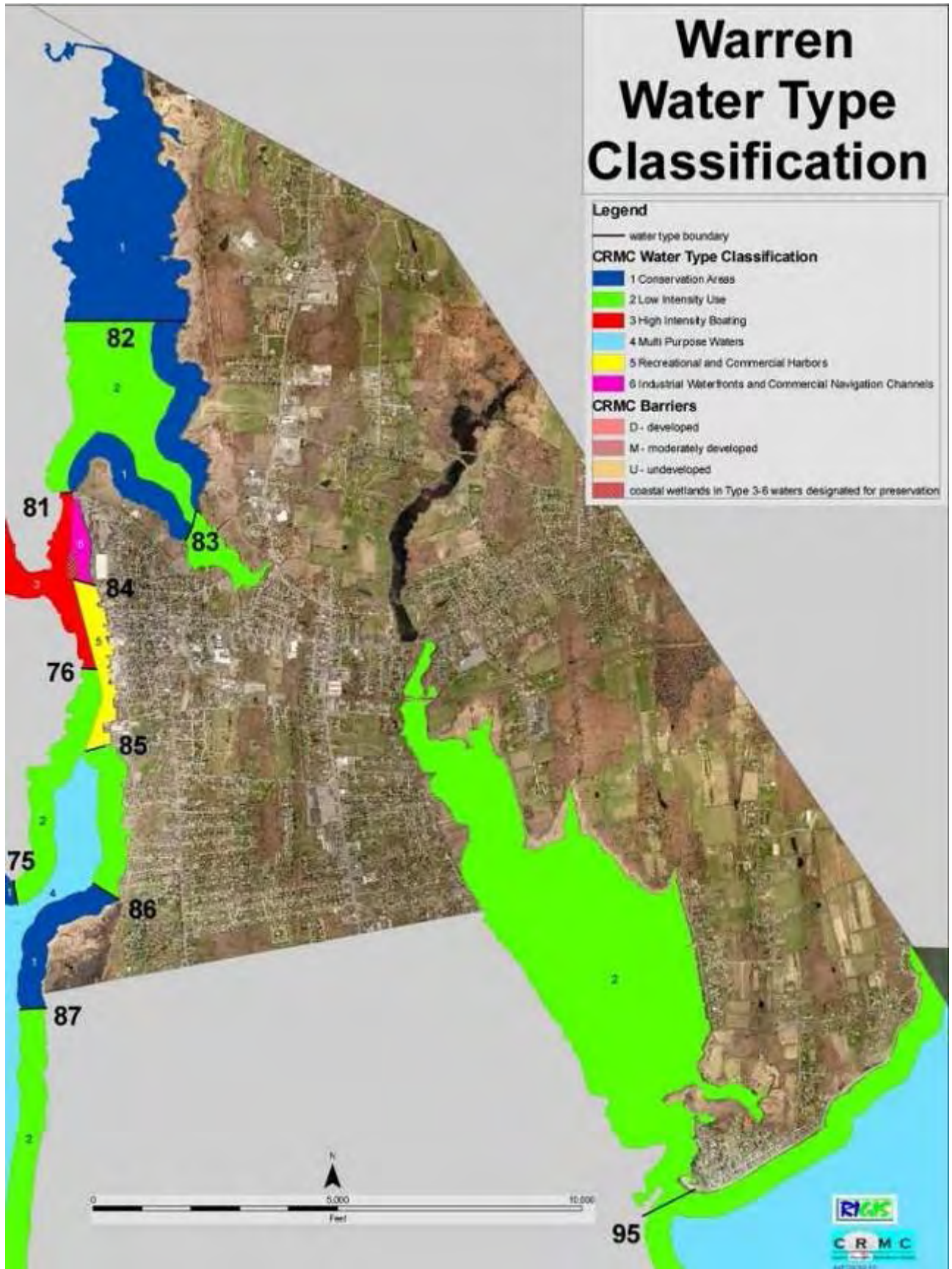
Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_barrington.html



Warren

- 81** Along the southern side of the old railway causeway.
- 82** A straight line from the north side of the end of Stanley Avenue running due easterly to a point of land on the opposite shore.
- 83** Along the pipeline crossing of Belcher Cove.
- 84** A straight line extension of the south side of Company Street.
- 85** At the southern end of the industrially zoned area.
- 86** At the outlet of a small stream south of Locust Street.
- 95** A straight line from the tip of the peninsula at end of Narrows Road in Bristol to the tip of the peninsula near the end of Brownell Street in Warren.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_warren.html



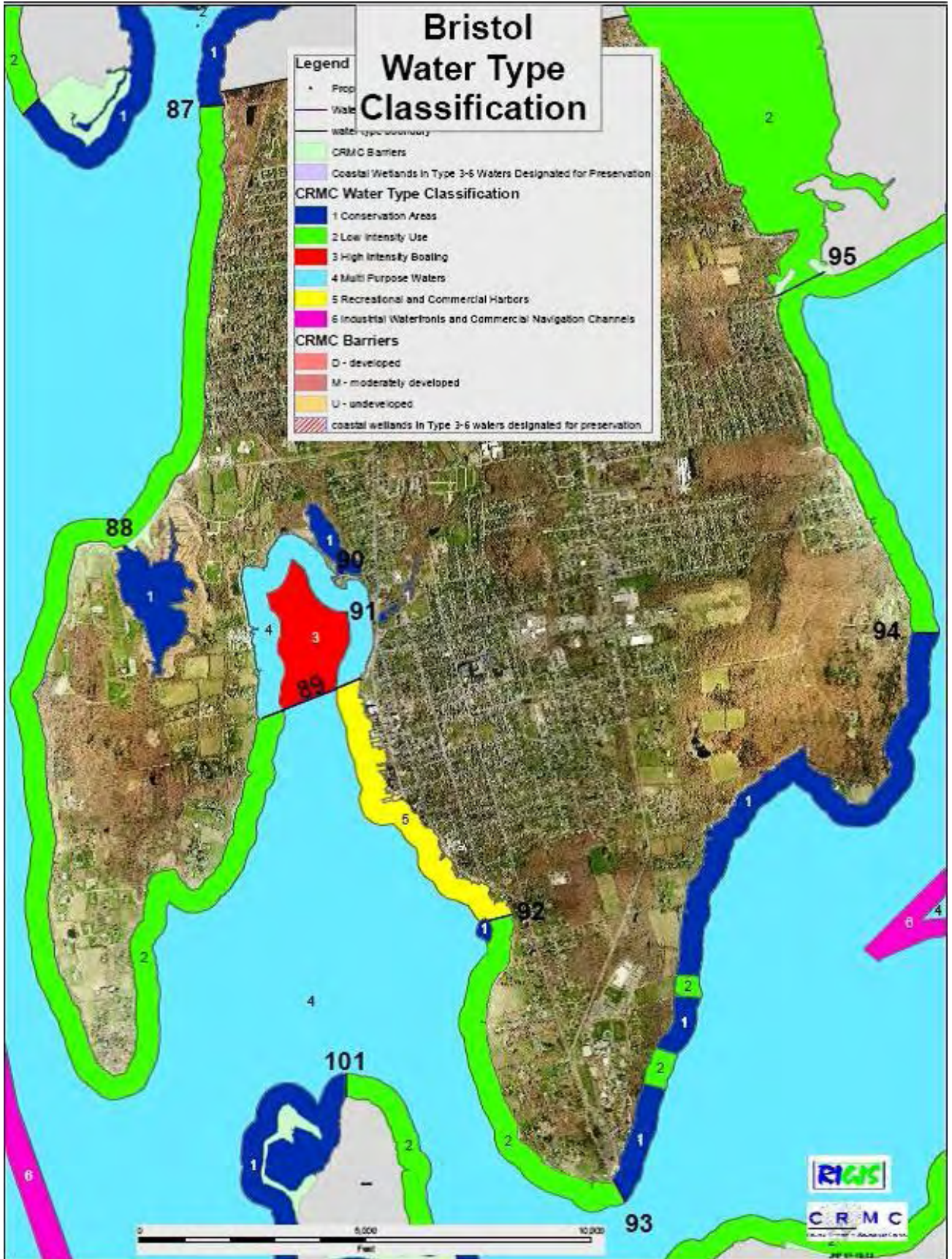
Bristol

- 87 Straight line extending seaward perpendicular to the shore at the southern edge of the ASRI property (from a point at approximately 227,955N/385,150E to 227,915N/384,613E RIspf83). Waters north of this line are Type 1 (Adopted by the Council on January 22, 2008).
- 88 Along the inside of the new bridge.
- 89 A straight line from the boundary between RM20 and RM40 zones on Poppasquash Neck to the boundary between the industrial and commercial zones on the Bristol waterfront.
- 90 The northern side of the bridge or culvert to Mill Pond.
- 91 The eastern side of the bridge over Silver Creek.
- 92 A straight line extension of Fairview Drive.
- 93 The eastern side of the Mount Hope Bridge.
- 94 A straight line extension along the south side of the large pier south of the Haffenreffer Museum.
- 95 A straight line from the tip of the peninsula at end of Narrows Road in Bristol to the tip of the peninsula near the end of Brownell Street in Warren.

Type 2 Waters

Along the Mount Hope Bay shoreline and abutting the Roger Williams University campus property. Starting from State Plane Coordinates (RIspf83) 395,162.845N/208,561.138E; 395,115.622N/208,094.471E; 394,707.289N/206,930.582E; and 394,437.845N/206,152.804E out to 500 feet offshore. (Adopted by the Council on June 25, 2013)

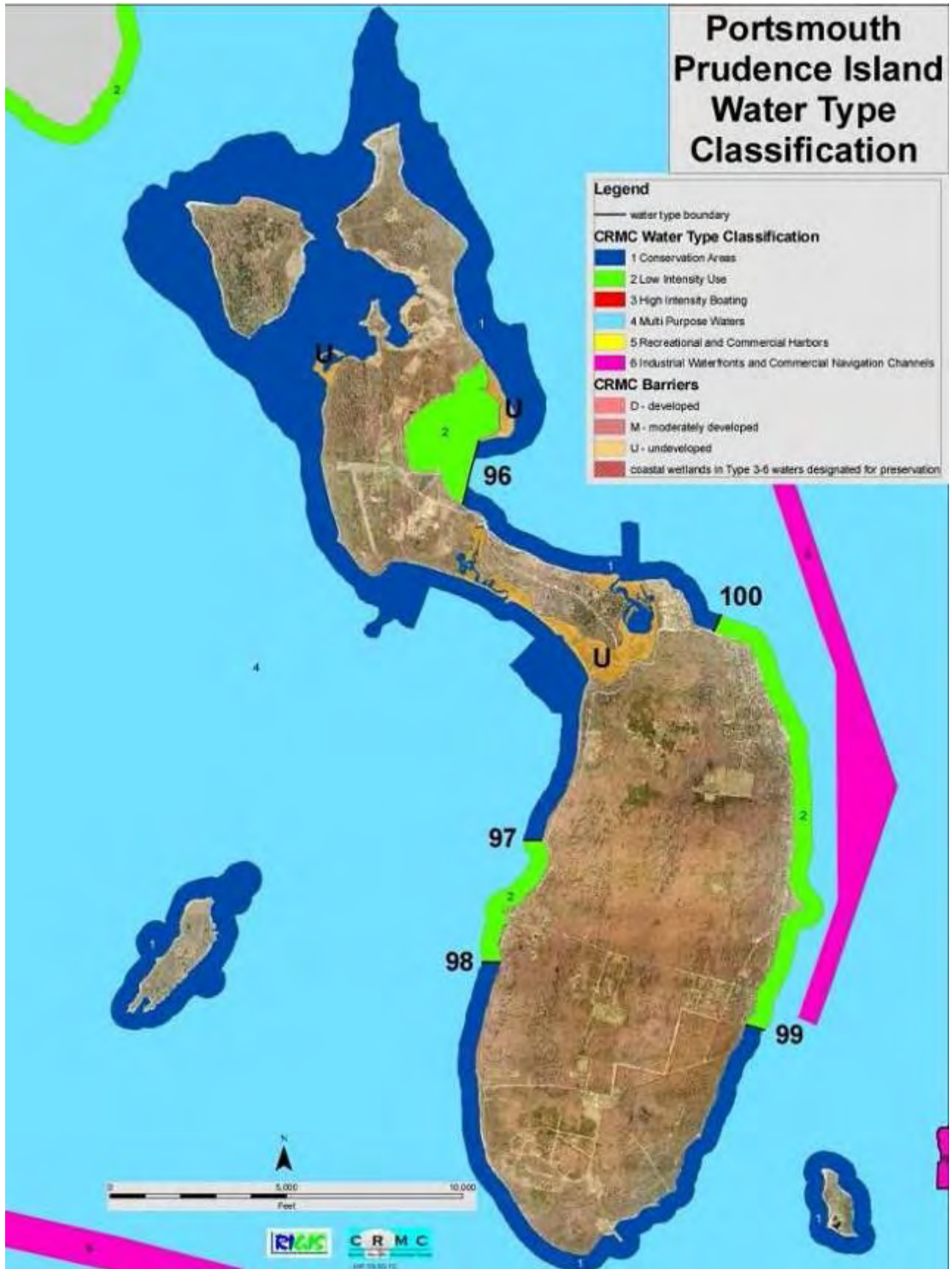
Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_bristol.html

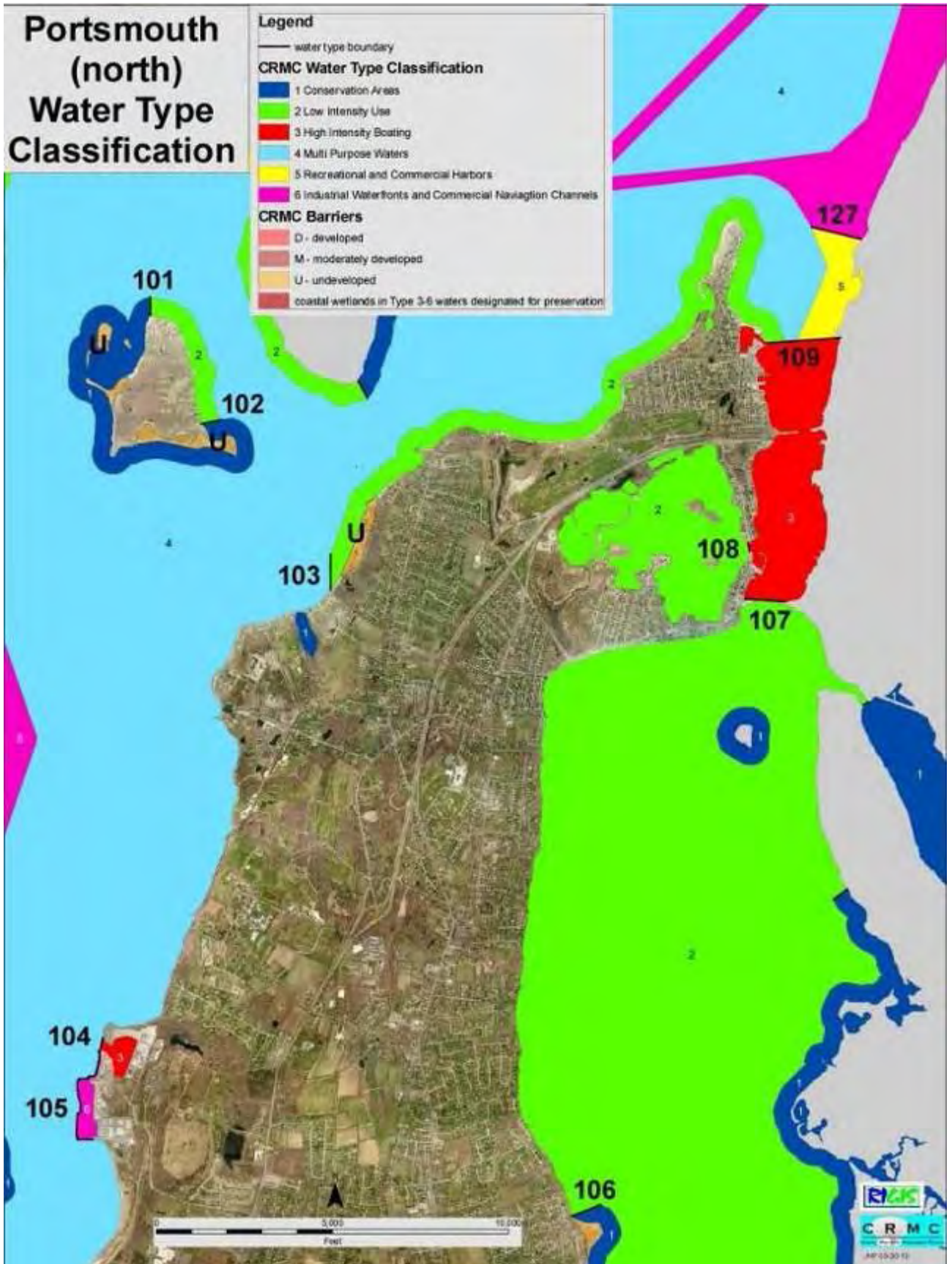


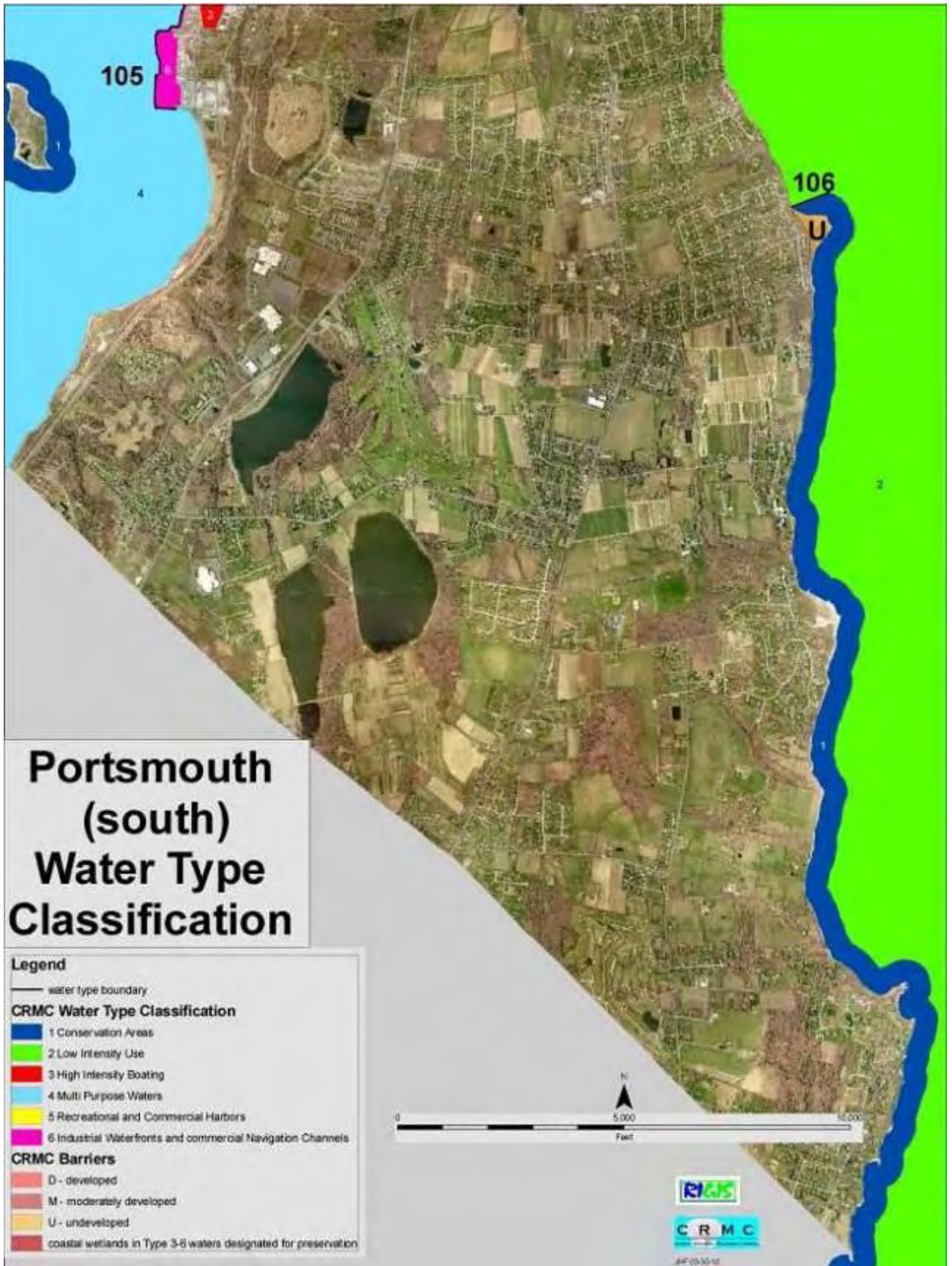
Portsmouth

- 96** A straight line from the tip of Gull Point running generally south-southwesterly, to the boundary between state and private lands on Prudence Neck. (The water use classification boundary around the north end of Prudence Island and Patience Island follows the 18-foot bathymetric contour line. This is consistent with the boundary of the area protected by provisions of the federal Estuarine Sanctuary Program.)
- 97** A line perpendicular to the shore from the southern side of the rocky extension north of Prudence Park.
- 98** A line from the outlet of a small, westerly flowing stream south of Prudence Park and north of Crow's Swamp.
- 99** A straight line extension of the boundary between public state park lands and privately owned lands.
- 100** The outlet of Mill Creek.
- 101** A line extending northerly from the northern tip of Hog Island.
- 102** A straight line extending easterly from a point 50 feet north of the edge of the adjacent marsh.
- 103** A straight line extending northerly from the boundary of Lots 8 and 9, Town Map 17.
- 104** A line connecting the westernmost points of land bordering the entrance into the Bend Boat Basin.
- 105** A line connecting to the southernmost border of line 104 and extending westerly 50 feet from shore; thence generally southerly, maintaining a 50-foot distance from shore and the outer perimeter of the wharves and piers of the Melville industrial facility; thence easterly to connect land at a point 50 feet south of the southernmost pier.
- 106** A straight line extension of Robin Road.
- 107** A straight line connecting the north sides of the abutments of the former Old Stone Bridge.
- 108** A straight line along the west side of the bridge connecting Point Road and Hummock Avenue at the entrance to Blue Bill Cove.
- 109** A straight line from the southern border of the industrially zoned area in Tiverton to the tip of the peninsula on the north side of Brewer's Marina in Portsmouth.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_portsmouth.html



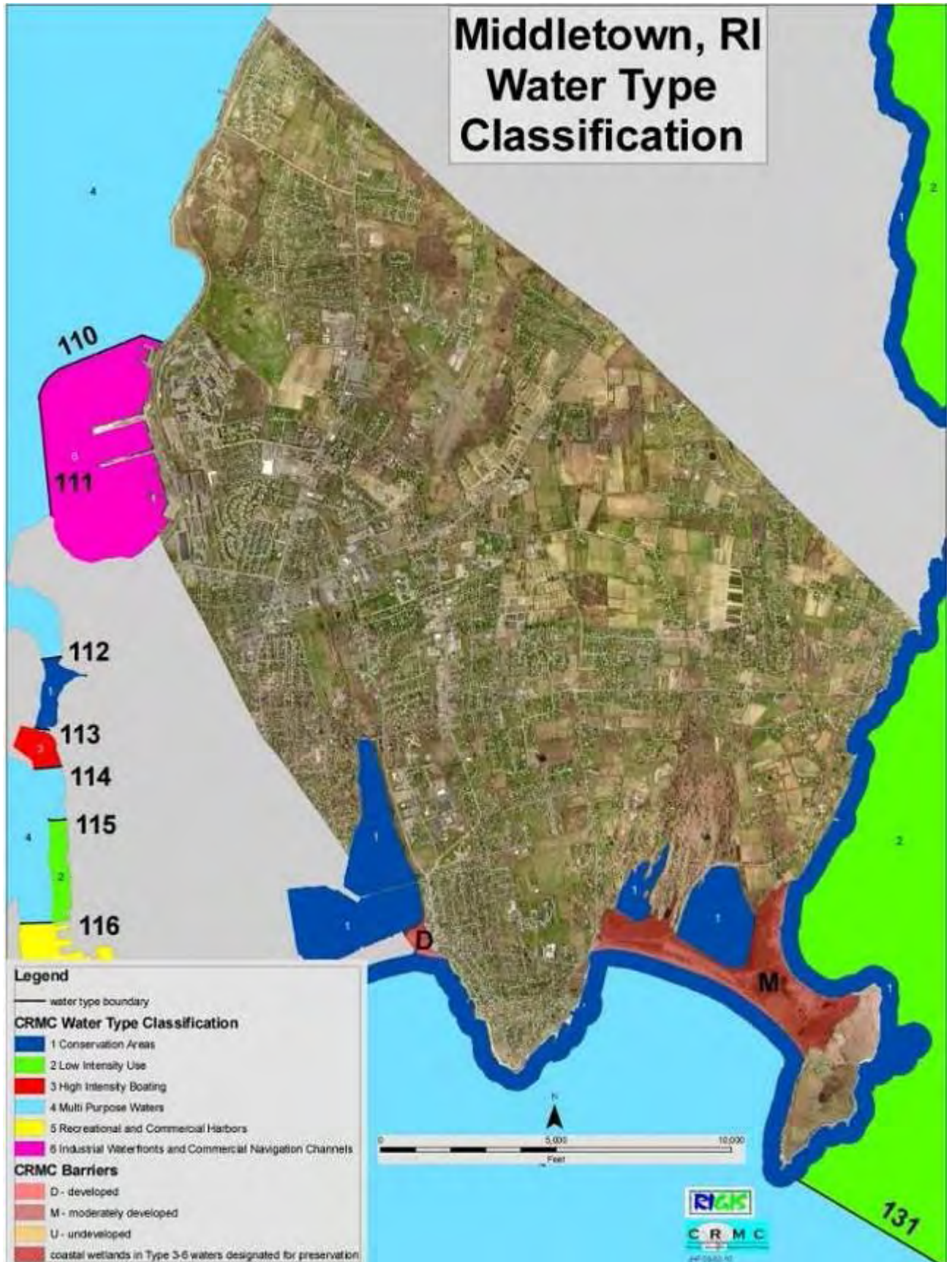




Middletown

- 110** The northern border of the rubble-mound breakwater.
- 111** A line extending out to meet the tip of the rubble-mound breakwater from the northernmost tip of Coddington Point.
- 131** A straight line across the entrance to the Sakonnet River from the tip of Sachuest Point to the southern tip of West Island near Sakonnet Point.

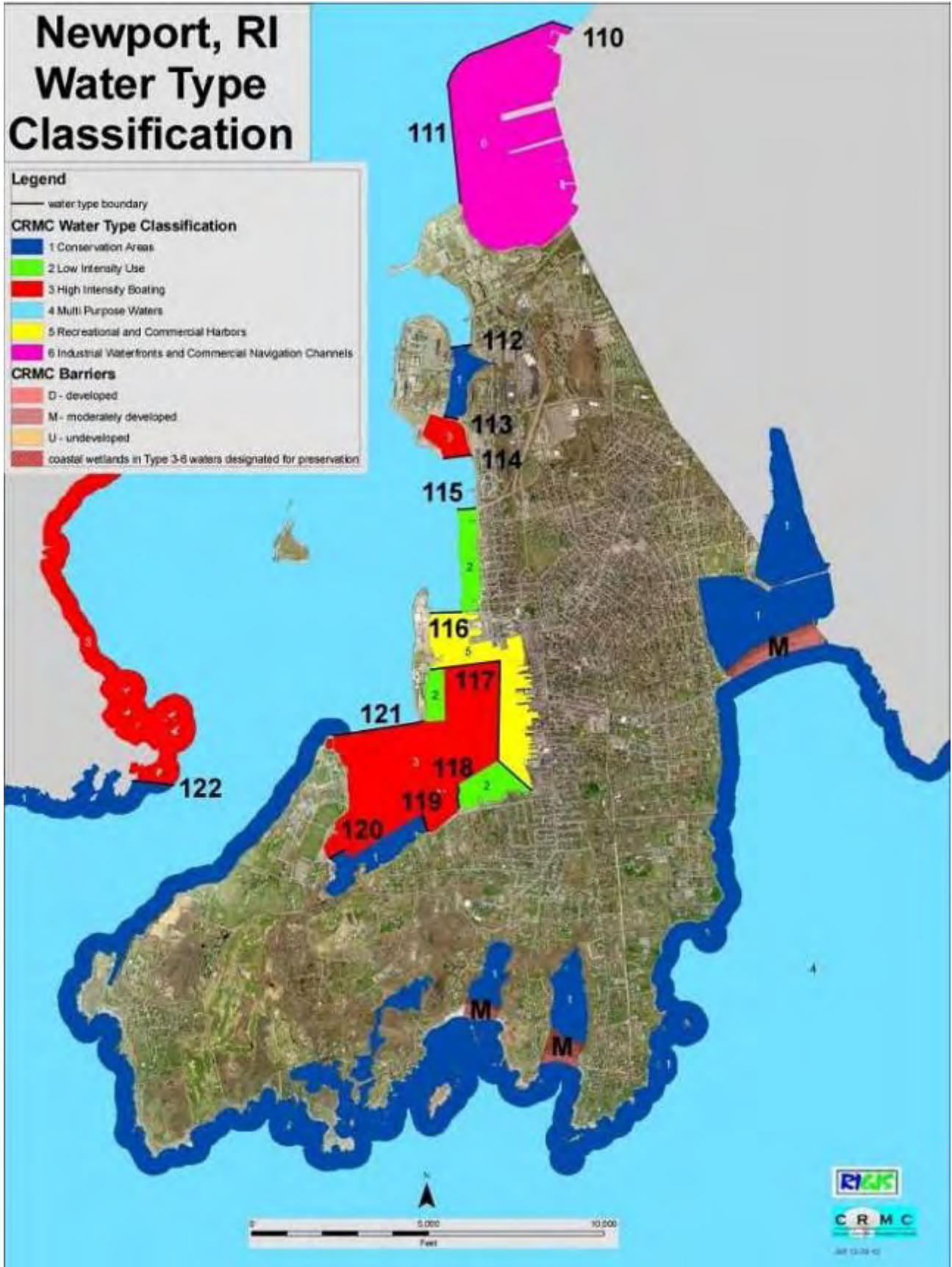
Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_middletown.html



Newport

- 111** A line extending out to meet the tip of the rubble-mound breakwater from the northernmost tip of Coddington Point.
- 112** A line bordering the southernmost side of the northern bridge connecting Coaster's Harbor Island to Aquidneck Island.
- 113** A line bordering the northern side of the bridge on Training Station Road which connects Coaster's Harbor Island to Aquidneck Island.
- 114** A straight line extending from the southern tip of Coaster's Harbor Island to a point where it meets with a straight line extension of an unnamed road.
- 115** A line along the southern side of the Newport Bridge
- 116** A line along the northern side of the causeway to Goat Island
- 117** A straight line commencing in the southeast corner of Newport Harbor, running generally northwesterly through the so-called "Spindle marker," to the point where it meets the edge of the federally established and maintained anchorage area, then generally northerly along the eastern side of the anchorage area, thence westerly to the southern boundary of the Port of Call Marina on Goat Island.
- 118** A line along the western side of the breakwater near Ida Lewis Rock.
- 119** A straight line extension from shore along the western side of the pier.
- 120** A straight line extension from shore along the southern side of the state-owned boat launching ramp.
- 121** A straight line extension from the northeastern tip of the Fort Adams anchorage basin easterly to the southern light on Goat Island.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_newport.html

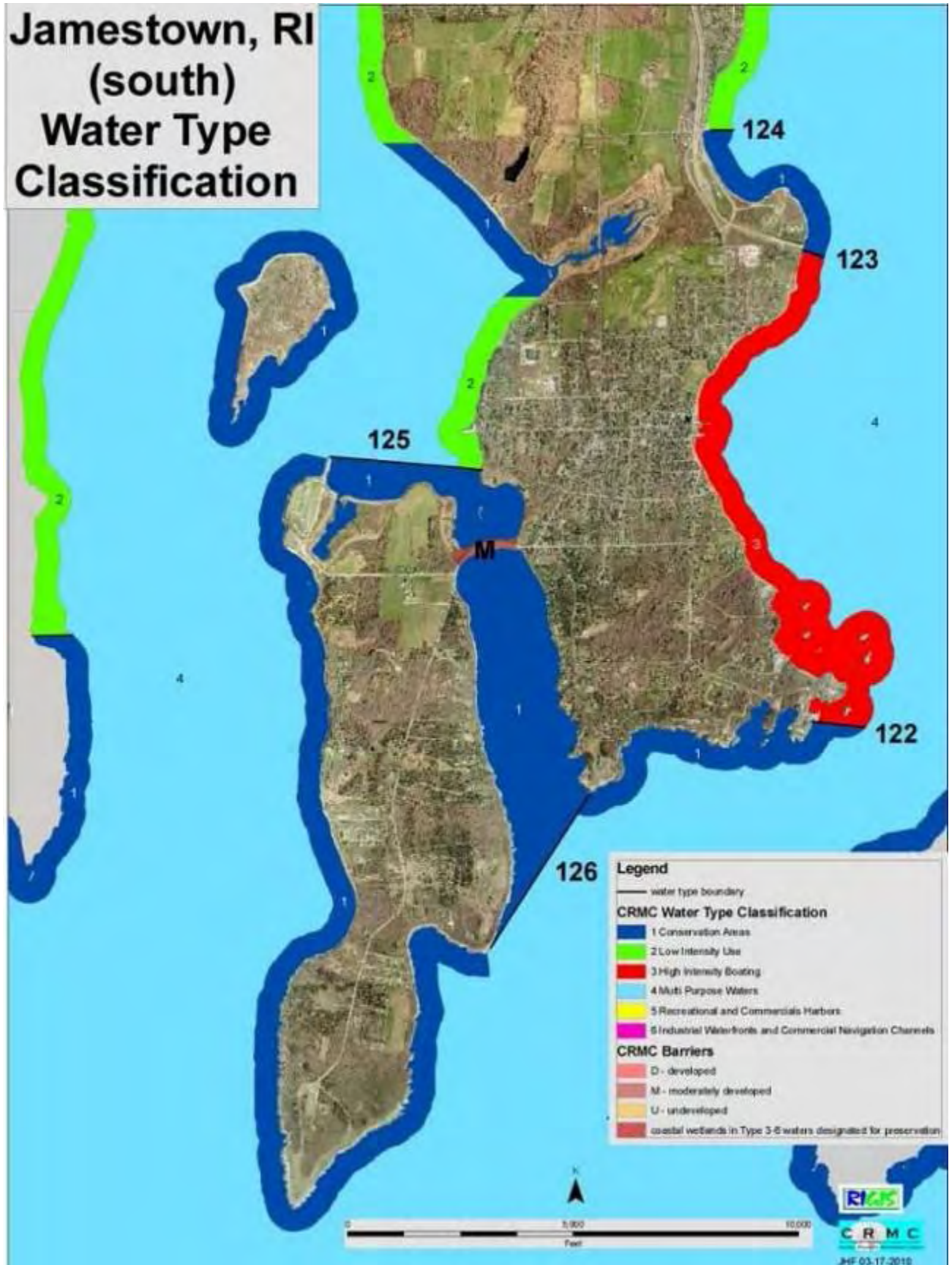


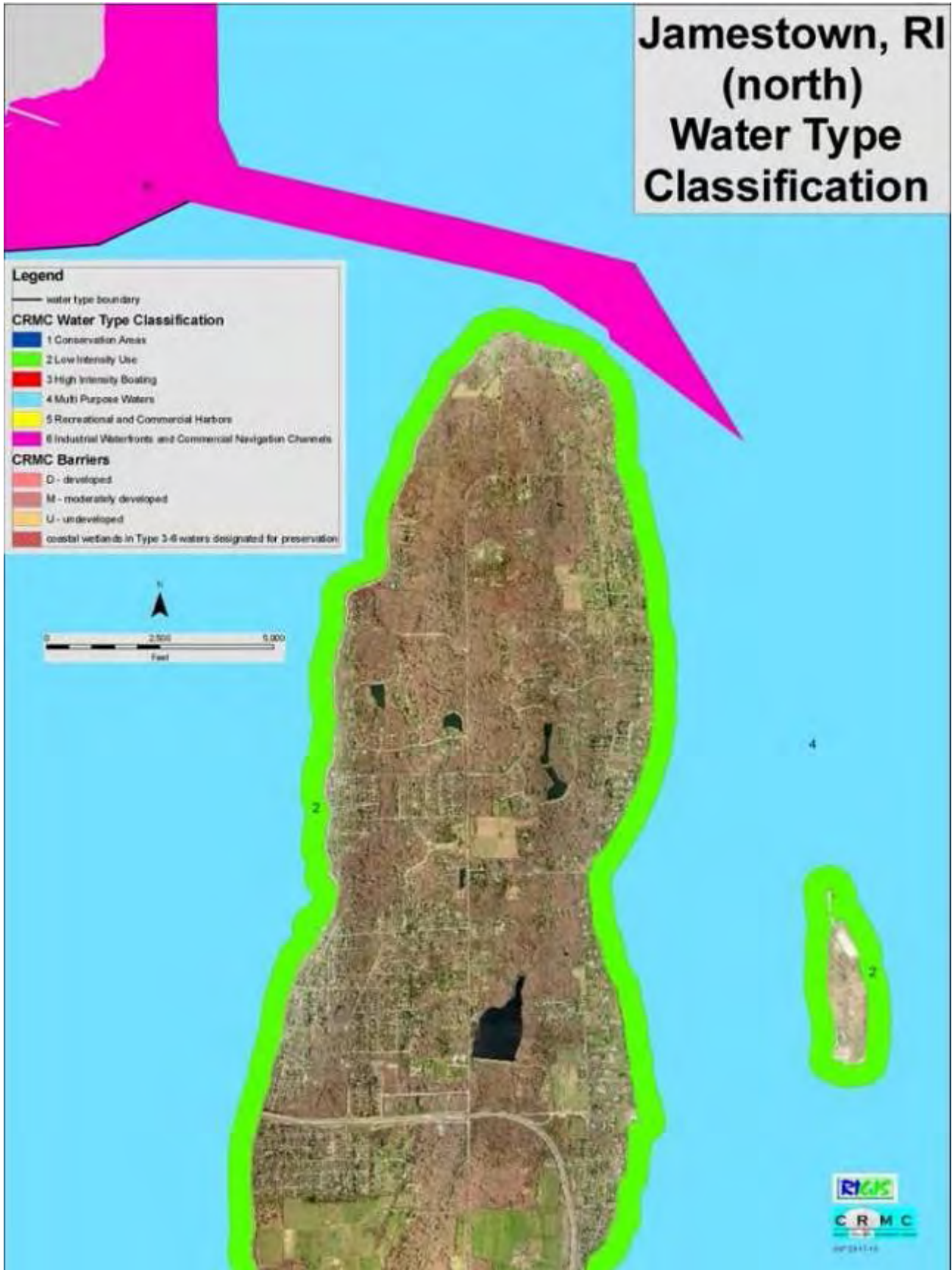
Jamestown

- 122** A straight line from shore along the southern side of the docking area at Fort Cove.
- 123** A line bordering the southern side of the Newport Bridge.
- 124** A straight line extension from the southern side of Weeden Lane.
- 125** A straight line from the southern end of Maple Avenue to the end of the large wharf at Beaverhead.
- 126** A straight line from Southwest Point to the tip of Shore Point.

Straight line extending seaward perpendicular to the shore at the southern-most boundary of Jamestown Estates Conservation Area (from point at approximately 156,752N, 358,389E RIspf83 to a point at approximately 156,753N/357,601E RIspf83), and a straight line extending perpendicular to the shore at the northernmost boundary of Watson Farm (from approximately 153,357N/361,079E to 153,349N/360,266E RIspf83). The waters within the polygon formed by these lines and bounded by the Jamestown shoreline to the east and the Type 4 waters boundary to the west are Type 1. (Approved by the Council January 22, 2008)

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_jamestown.html

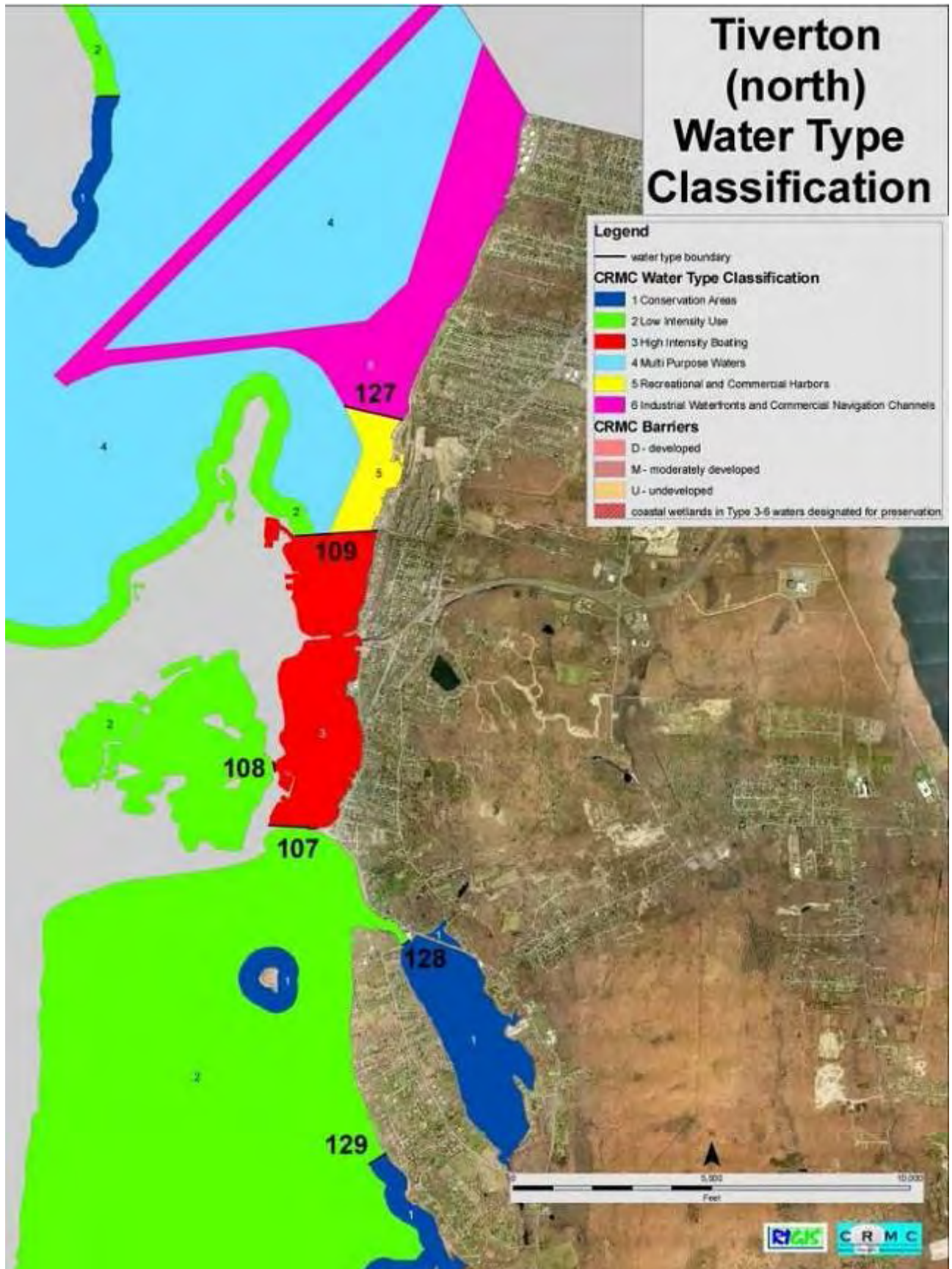


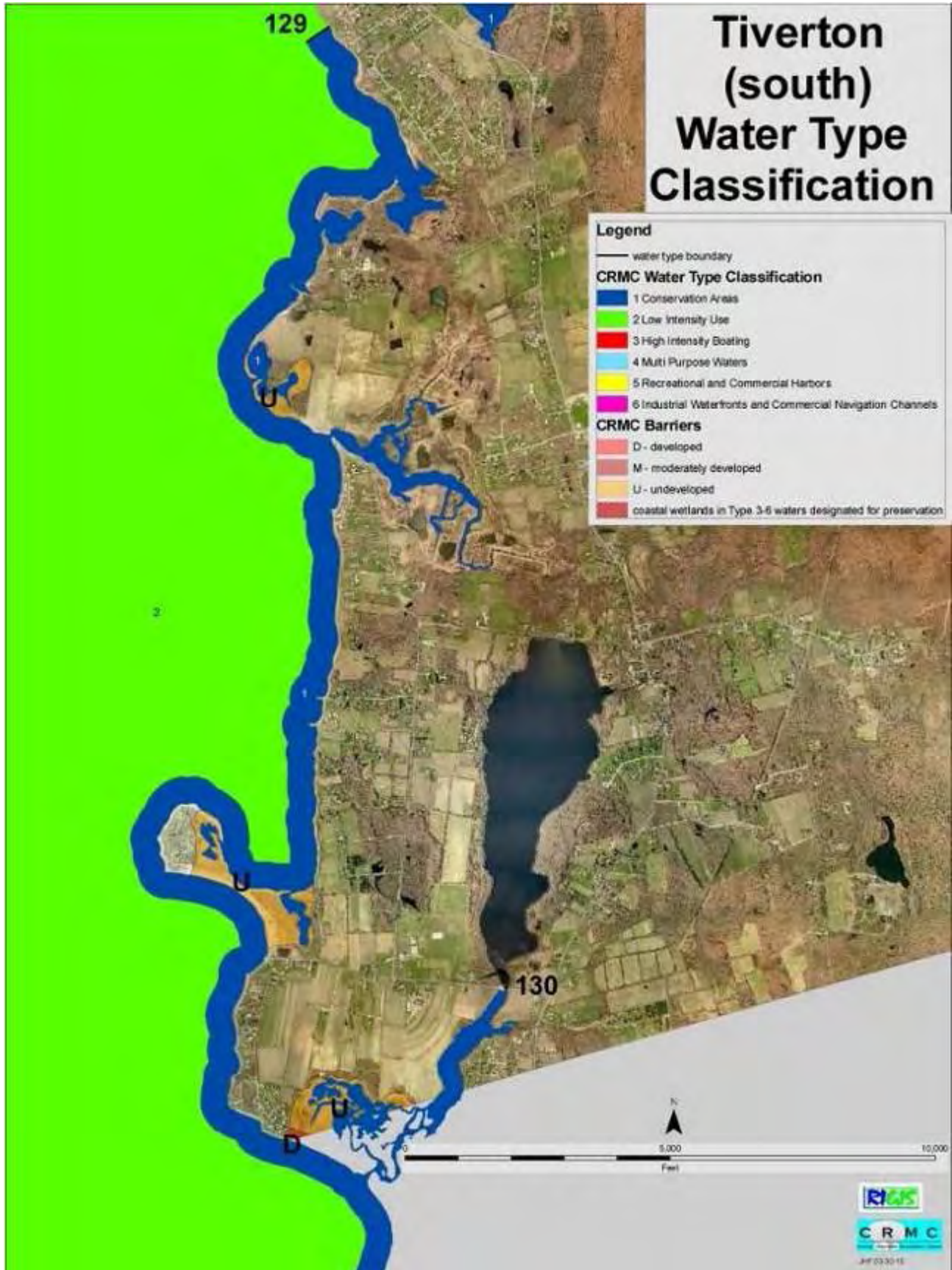


Tiverton

- 107** A straight line connecting the north sides of the abutments of the former Old Stone Bridge.
- 109** A straight line from the southern border of the industrially zoned area in Tiverton to the tip of the peninsula on the north side of Brewer's Marina in Portsmouth.
- 127** A straight line extension of the northern boundary of land now or formally known as Charter Oil to its intersection with the existing Type 4 Water Designation.
- 128** A straight line along the south side of the Nannaquaket Pond Bridge.
- 129** A straight line extension of the south side of Island View Road.
- 130** A straight line at the north side of the Nonquit Pond Dam.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_tiverton.html





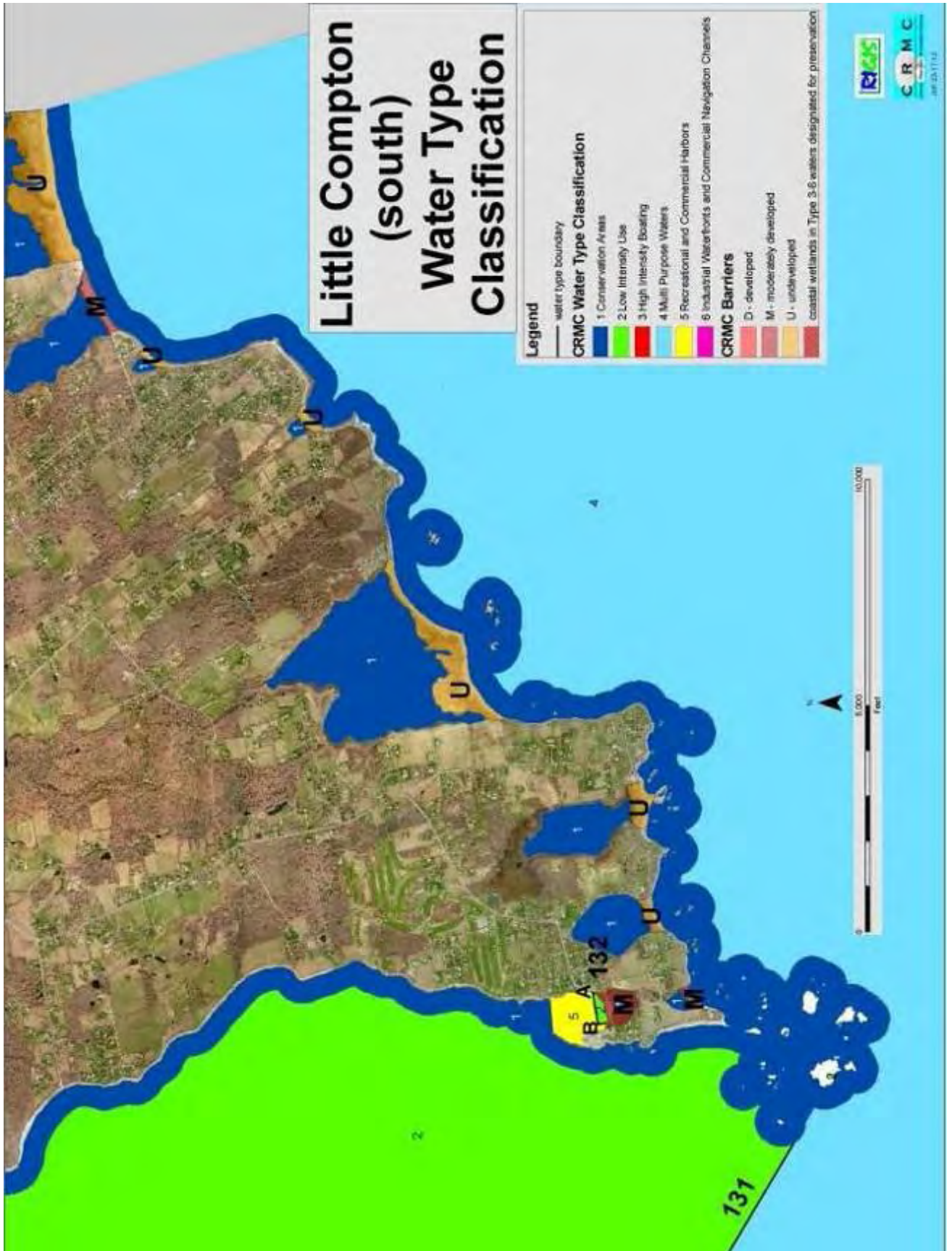
Little Compton

- 131** A straight line across the entrance to the Sakonnet River from the tip of Sachuest Point to the southern tip of West Island near Sakonnet Point.

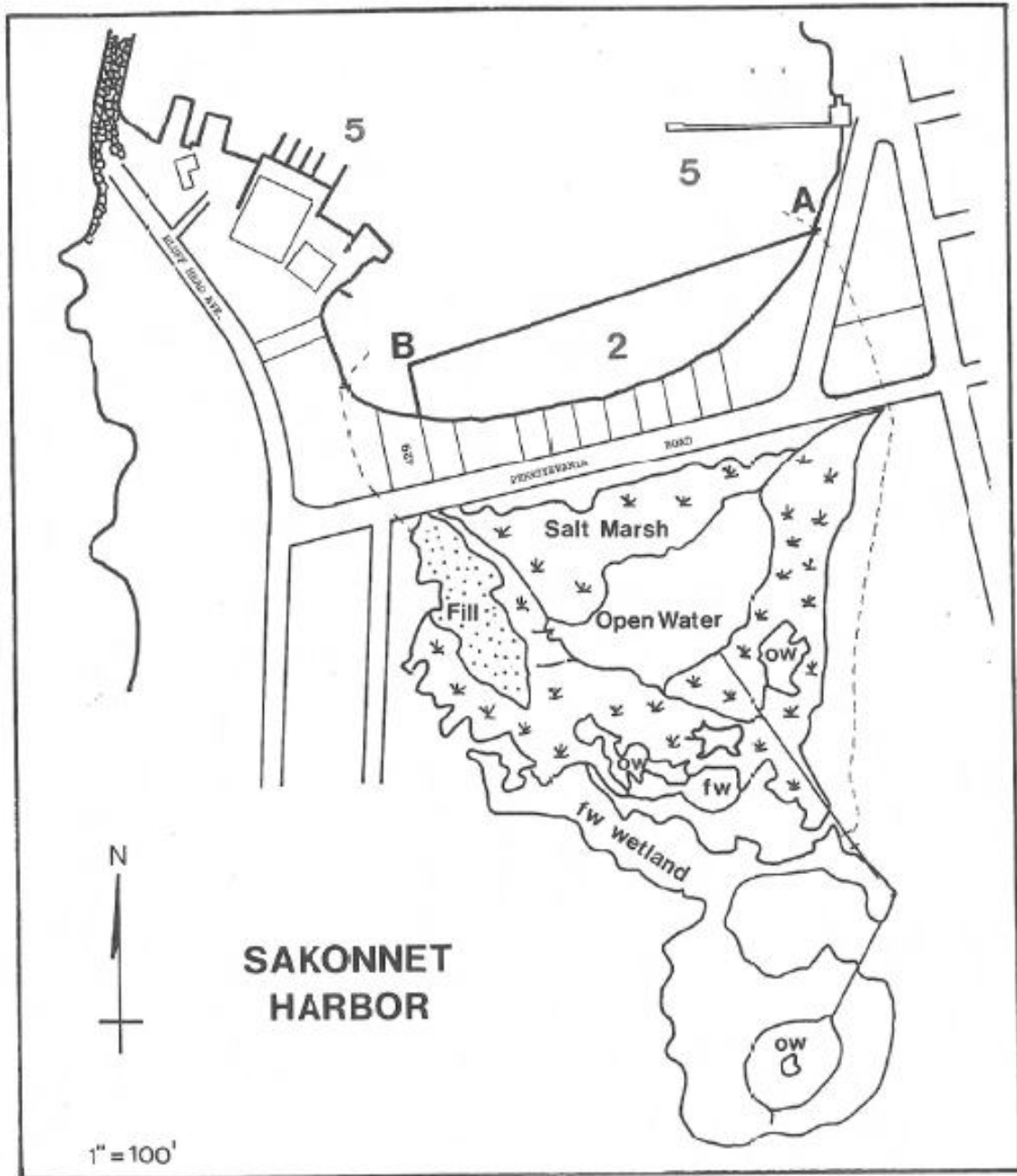
Sakonnet Harbor

- 132** The water area immediately adjacent to the barrier beach, starting at Point A (the northeast edge of Lot 385 where the eastern boundary of the barrier beach, identified by Dr. Boothroyd, intersects with the shore) then extending toward the western shore boundary of the barrier beach designated by Dr. Boothroyd to Point B (where a line drawn in a northerly direction as an extension of the eastern boundary of Lot 429 forms an intersect) are designated as Type 2. The remainder of the water area in Sakonnet Harbor are designated Type 5.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_littlecompton.html







Block Island (New Shoreham)

- 133** Straight line extensions of the outsides of each of the two jetties at the breachway entrance to Great Salt Pond.
- 134** A straight line starting from the point of land on the northeast side of the Great Salt Pond breachway and running generally southeasterly to Harris (Breezy) Point.
- 135** A straight line starting at Harris (Breezy) Point and running generally southwesterly to Can Buoy #5.
- 136** A straight line southwesterly extension of the west jetty at the breachway entrance to Great Salt Pond which joins with the seaward limit of a straight line (500 feet) extension of the boundary between the commercial/low residential zone area west of Champlin's Dock, thence turning generally easterly and running to Can Buoy #5, then turning generally south-southeasterly and running to the point of land on the eastern shore of the channel to Trim's Pond, thence turning 90 degrees and running west to land on the western side of the Trim's Pond Channel.
- 137** A line along the outside of the west breakwater.
- 138** A line along the outside of the east breakwater.
- 139** A straight line starting at the boundary of lots 64-1 and 65 and running generally southeasterly to terminate at the northern boundary of lots 103 and 104.

Online Map: http://www.crmc.ri.gov/maps/maps_wateruse_blockisland.html



Shoreline Change Maps

Watch Hill to Little Compton

The Coastal Resources Management Council has developed shoreline change maps that comprise the state's shoreline from Watch Hill to Pt. Judith, into and inclusive of Narragansett Bay and its islands, to the eastern shoreline of Little Compton.

The purpose of these maps is to show shoreline rates of change that will be applied to pertinent sections of the Council's regulatory programs to address issues including setbacks of activities from coastal features. These shoreline change maps detail erosion rates for the shoreline, and are further detailed into shoreline segments for each map. In total there are 173 such maps, which are herein incorporated as regulations of the RICRMP. A map for Block Island is not included however and setbacks and erosion rates for Block Island shall be assessed on a case-by-case basis.

These shoreline change maps are orthophoto aerial images which individually are very large digital computer files. They can be examined at the Council's office in Wakefield, at the secretary of state's office, and on-line at the Council's website: www.crmc.ri.gov

Sea Level Affecting Marshes Model (SLAMM) Maps

Rhode Island Coastal Communities

The Rhode Island Coastal Resources Management Council (CRMC) and its partners have developed Sea Level Affecting Marshes Model (SLAMM) Maps for the coastal wetlands of all 21 Rhode Island coastal communities. The purpose of these SLAMM maps is to show how coastal wetlands will likely transition and migrate onto adjacent upland areas under projected sea level rise scenarios of 1, 3 and 5 feet in the coming decades. These maps are intended to support state and local community planning efforts and to help decision makers prepare for and adapt to future coastal wetland conditions despite the inherent uncertainties associated with future rates of sea level rise.

The SLAMM maps were developed using a digital wetlands coverage derived from the 2010 National Wetlands Inventory for Rhode Island. The elevation data used in the model was developed from the 2011 USGS LIDAR elevation dataset. These maps were developed using the “protection off” mode for the model simulations, thereby depicting the highest potential for marsh migration despite current limitations such as parking lots, roads or other development. In this way the maps illustrate opportunities for conservation and potential land modification to enhance wetland migration and restoration. The SLAMM data do not consider natural processes such as coastal erosion or the impacts of coastal storms that can have significant influence on shoreline location and sediment dynamics. Despite these limitations the data still provide a valuable tool to identify those places that provide the best opportunity for future saltmarsh habitat and conservation priorities, and provide valuable information to help plan for new development and infrastructure. Additional map parameters, data sources and caveats can also be found at www.crmc.ri.gov

These SLAMM maps are Geographic Information System (GIS)-based map images exported as PDF files to reduce file size and ease of access. In total there are 149 map panels that cover the entire Rhode Island shoreline and each panel has four maps showing the initial (current in 2010) wetland condition followed by 1, 3, and 5-foot of sea level rise scenarios.

No warranty is expressed or implied by the CRMC and its SLAMM project partners related to the spatial accuracy of these maps and promote no other use of these maps and data other than as a planning tool. These maps should not be used for, and are not intended for, survey and engineering purposes. The data do not take the place of a legal survey or other primary source documentation. They were created for general reference, informational, planning, and guidance use. They are not a legally authoritative source as to the exact location of natural or manmade features.

These maps are herein incorporated under Section 210.3 of the RICRMP. They can be examined at the Council’s office in Wakefield, at the Secretary of State’s office – State Archives Division, and on-line at the Council’s website: www.crmc.ri.gov.