COASTAL RESOURCES MANAGEMENT COUNCIL

SEMI-MONTHLY MEETING

TUESDAY, SEPTEMBER 11, 2018

6:00 P.M.

AGENDA
PART I

State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

AGENDA

Semi-Monthly Meeting – Full Council
Tuesday, September 11, 2018; 6:00 p.m.
Administration Building; Conference Room A
One Capitol Hill, Providence, RI 02908

Approval of the minutes of the previous meeting – August 28, 2018
Subcommittee Reports
Staff Reports

ENFORCEMENT CASE BEFORE THE COUNCIL FOR ORDER TO RESTORE:

2017-047 **BUZ & CYNTHIA GARDINER** – Restoration of unauthorized alteration of the buffer zone and wetland on your property located at Plat N-R, Lots 1229,1230, 120 Allagash Trail, Narragansett without benefit of a CRMC assent.

PUBLIC HEARING ON PROPOSED AMENDMENTS TO THE COASTAL RESOURCES MANAGEMENT PROGRAM:

Summary of Rulemaking Action:
The purpose of this proposed rule is to amend and consolidate the current Red Book [650-RICR-20-00-1] with existing requirements and standards of the CRMC "Guidelines for the Development of Municipal Harbor Management Plans" [ERLID #5719] and incorporate desirable elements of the CRMC's "Energy Amendments" [ERLID #1060]. The CRMC will concurrently repeal those rules [ERLIDs #1060 and 5719]. Additionally, a number of amendments are proposed as listed below.

1 Correct definition at §1.1.2(A)(1) to more accurately define CRMC jurisdiction for certain activities in accordance with R.I. Gen. Laws §46¬23¬6. No change in status quo of regulations.

2. Add new definitions in §1.1.2(A) for (10) "approved waters"; (144) "seed"; (148) "shellfish stock"; (153) "spat"; (154) "spat collection"; (171) "upweller"; and (180) "wild stock" for consistency with amended aquaculture rules in §1.3.1(K). The amendments clarify previously agreed upon responsibilities and duties between the DEM and CRMC via codification of long-standing, existing practices; no new requirements. No change in status quo of regulations.

3. Add new definitions in § 1.1.2(A) for (9) "approved harbor management plan"; (17) "boat"; (38) "corner buoys"; (74) "global positioning system"; (76) "harbor commission"; (77) "harbormaster"; (97) "moor"; (98) "mooring"; (99) "mooring area"; (133) "RI state plane coordinate system of 1983"; and (173) "vessel" for consistency with amended municipal harbor regulations in §1.3.1(O). No change in status quo of regulations; §1.3.1(O) amendments are consistent with existing CRMC guidance and long-standing practice.

4. Modify definition at §1.1.2(A)(12) to accurately define the term "Areas of historic and archaeological significance" in accordance with R.I. Gen. Laws §45-22.2-4(12). No change in status quo of regulations.

5. Add new definition at §1.1.2(A)(24) for "certified verification agent" as referenced in amended §1.3.1(H).

6. Add new definition at §1.1.2(A)(35) for "commercial marine facility" for consistency with existing fitness of purpose requirements in amended §1.3.1(C). No change in status quo of regulations.

7. Modify definition §1.1.2(A)(54) for "energy-related activities" to include construction of such facilities and to apply to the entirety of the CRMC's jurisdiction as authorized in accordance with R.I. Gen. Laws §46-23-6.

8. Modify definition §1.1.2(A)(54) for "freshwater wetland" as defined by R.I. Gen. Laws §2-1-20(8) and modified in 2015. No change in status quo of regulations.

9. Modify definition §1.1.2(A)(80) for "house boat" as defined by R.I. Gen. Laws §46-22-9.1. No change in status quo of regulations.

10. Modify definition §1.1.2(A)(106) for "one-hundred-year flood level" for consistency with modern terminology and change in federal agency assignment. No change in status quo of regulations.

11. Modify definition §1.1.2(A)(111) for "outhaul" to clarify that outhauls are indeed a recreational boating facility as defined in § 1.1.2(A)(127) and long-standing CRMC practice. No change in status quo of regulations.

12. Modify definition §1.1.2(A)(127) for "recreational boating facility" to specifically include outhauls, which are recreational boating facilities. No change in status quo of regulations.

13. Modify definition §1.1.2(A)(129) for "residential boating facility" to better clarify eligible facilities. No change in status quo of regulations.

14. Modify definition §1.1.2(A)(130) to more accurately define "residential building." No change in status quo of regulations.

15. Modify definition §1.1.2(A)(146) to accurately define "sewage" pursuant to R.I. Gen. Laws §46-12-1(21). No change in status quo of regulations.

16. Modify definition §1.1.2(A)(161) to define "subdivision" in accordance with R.I. Gen. Laws §45-23-32(52). No change in status quo of regulations.

17. Add requirements for applicants in §1.1.3 (originally in Red Book introduction section). No change in status quo of regulations.

18. Add "dunes" to §1.1.4(A)(4) to correctly list all CRMC shoreline features. No change in status quo of regulations.

19. Amend §1.1.4(B) to correct the CRMC categories and activities in accordance with R.I. Gen. Laws §46-23-6. No change in status quo of regulations.

20. Amend §1.1.4(C)(1) to accurately specify which CRMC SAMPs are critical coastal areas and the activities subject to CRMC jurisdiction within those SAMPs. No change in status quo of regulations.

21. Modify §1.1.4(D) for consistency with CRMC freshwater wetlands in the vicinity of the coast. No change in status quo of regulations.

22. Amend matrices for water types 1-6 to modify the definition of "recreational mooring areas" in §1.1.5 to cover all mooring areas, not just recreational mooring areas. No change in status quo of regulations.

23. Add new §1.1.6(I) for coastal hazard analysis application requirements. Amendment driven by new Council adopted Shoreline Change (beach) SAMP guidance document. While applicants will be required to use the CRMC online tools, it will not add additional cost to the application. The resulting analysis will be informative for the applicant and will not be used to approve or deny a project.

24. Add new §1.1.9(D) for setback requirements involving demolition to be consistent with existing requirement in §1.1.11 of this Part. No change in status quo of regulations.

25. Amend §1.1.10(A)(4) to incorporate 2017 NOAA sea level rise scenario and replace outdated 2012 data. No change in status quo of regulations.

26. Amend §1.1.11(B) to incorporated buffer policies from findings. No change in status quo of regulations.

27. Amend §1.1.11(D) to incorporate long-standing buffer management standards from the CRMC buffer zone management guidance document. No change in status quo of regulations.

28. Add new §1.1.11(E) to incorporate long-standing buffer pathway prohibition consistent with CRMC buffer zone management guidance document. No change in status quo of regulations.

29. Amend §1.1.12(E)(1) to eliminate transient aquaculture gear lease fees (no longer acceptable method). No change in status quo of regulations.

30. Amend §1.2.2(C)(1)(a) to add contiguous freshwater wetlands protected under the program consistent with existing definition. No change in status quo of regulations.

31. Amend §1.2.2(D)(1)(a) to add coastal bluff policy from findings. No change in status quo of regulations.

32. Amend §1.2.2(F)(1)(a) and (e) to add manmade shoreline policy from findings. No change in status quo of regulations.

33. Amend §1.2.2(G)(1)(a), (b) and (d) to add dune policy from definition and findings. No change in status quo of regulations.

34. Amend §1.3.1(A)(1) to make Category B application requirements of the Red Book necessary data and information (NDI) as part of federal consistency reviews. The amendment clarifies existing requirements for federal consistency applicants (federal consistency applicants do not pay an application fee); no change in status quo of regulations.

35. Amend §1.3.1(B)(1)(a) to exempt agricultural practices under this subpart consistent with the definition moved to § 1.1.2. No change in status quo of regulations.

36. Add new §1.3.1(C)(4)(b) to codify existing practice of fitness of purpose analysis for commercial marine facilities consistent with CRMC guidance document and in accordance with R.I. Gen. Laws §46-23-6(4)(vi). No change in status quo of regulations, as amendment is consistent with CRMC guidance document and in accordance with R.I. Gen. Laws §46-23-6(4)(vi).

37. Amend §1.3.1(D)(3)(h) to address previously authorized docks. Further clarification of existing rules from Pre-existing Residential Boating Facilities Program (now repealed as part of Red Book consolidation). No change in status quo of regulations.

38. Amend §1.3.1(D)(7)(b) to address docks in Type 1 waters. Further clarification of existing rules from Pre-existing Residential Boating Facilities Program (now repealed as part of Red Book consolidation). No change in status quo of regulations.

39. Add new §1.3.1(F)(1)(h) to address maximum extent practicable standards found in the definition "maximum extent practicable" (now in §1.1.2). This portion of definition is policy. No change in status quo of regulations.

40. Amend §1.3.1(F)(4)(b) to delete anachronistic text. No change in status quo of regulations.

41. Amend §1.3.1(H) to incorporate desirable elements of the CRMP's Energy Amendments (adopted in 1978, formerly §600 of the CRMP) and requirement for certified verification agent (as already required by 650-RICR-20-05-11) for energy-related facilities. See cost/benefit analysis.

42. Amend §1.3.1(I) to address upland and in-water dredge material disposal. Add new standards in 1.3.1(I)(5)(d)for disposal within CAD cells. No change in status quo of regulations, as dredge operators already follow long-standing CRMC guidance and permit conditions.

43. Amend §1.3.1(J) to add filling in tidal water policies previously in definition. No change in status quo of regulations.

44. Amend §1.3.1(K) for consistency of current practices and policies for aquaculture by CRMC and DEM. Clarification of responsibilities and duties between the state regulatory agencies; no new requirements. No change in status quo of regulations.

45. Amend §1.3.1(N) to add requirement for inspection and analysis consistent with CRMC "Guidelines for Fitness of Purpose Investigations and Certifications" if maintenance history indicates is necessary. No change in status quo of regulations, as amendments are consistent with CRMC guidance document and in accordance with R.I. Gen. Laws §46-23-6(4)(vi).

46. Amend §1.3.1(O) to integrate regulatory elements of the CRMC "Guidelines for the Development of Municipal Harbor Management Plans." No change in status quo of regulations as amendments codify long standing CRMC practice and are consistent with existing CRMC guidance.

47. Amend §1.3.1(Q) to add wetland walkover policy from findings. No change in status quo of regulations.

48. Amend §1.3.1(R) to add submerged aquatic vegetation policy from findings. No change in status quo of regulations.

49. Amend §1.3.3 for consistency with R.I. Gen. Laws §46-23-6. No change in status quo of regulations.

50. Amend §1.3.4 to add critical coastal areas policy from findings. No change in status quo of regulations.

51. Amend §1.3.5 to change guidelines to polices. No change in status quo of regulations.

52. Amend §1.3.6 to add important public access policy from findings. No change in status quo of regulations.

53. Add new §1.5 Public and Government Participation, which is an existing section of the CRMP and formerly known as CRMP §700 to be consolidated with the Red Book. No change in status quo of regulations.

54. Amend §1.6(R) for Bristol water type map change. No change in status quo of regulations as water type change is more permissible and affects only RWU property, as requested by the University.

55. Amend §1.7 to add nine (9) new Block Island shoreline change maps. No change in status quo of regulations, as changes only add more precise erosion rates for more predictable application process and permitting efficiency.

EXECUTIVE SESSION § 42-46-5(2) – Potential Litigation, Ocean SAMP

lat

2017-047 BUZ & CYNTHIA GARDINER

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

ENFORCEMENT REPORT

RE: CRMC Enforcement File 17-0147

LOCATION: Plat N-R, Lots 1229 and 1230, Allagash Road, Narragansett

OWNERS: Buz Gardiner, Lot 1229
Cynthia Gardiner, Lot 1230

FILE SUMMARY

- On June 24, 1992, CRMC assent 92-6-18 was issued to Buz and Cynthia Gardiner to construct and maintain a 20' x 42' single family dwelling at plat N-R, lot 1229. The assent required a 15' buffer zone off of the contiguous freshwater wetland.
- On December 5, 2017, CRMC Cease and Desist Order was issued to Buz and Cynthia Gardiner for alteration of the buffer zone and wetland on lots 1229 and 1230. In response to the Cease and Desist Order Mr. Gardiner contacted enforcement staff on December 12, 2017 and was advised that the site required restoration.
- After several deadline extensions for restoration plan submittal, enforcement staff was notified on July 31st, 2018 by the Gardiners' consultant, NRS, Inc., that the Gardiners had decided not to submit a restoration plan or an application to maintain the site in its current, unauthorized condition.

RECOMMENDATIONS

- Enforcement staff recommends that the Council issue an Order to Restore that requires the Gardiners to submit an acceptable restoration by September 18, 2018 and to restore the buffer zone and wetland in their entirety by October 15, 2018.
- Enforcement staff recommends that the Gardiners be required to submit an application by September 30, 2018 to address the deck and driveway which are currently inconsistent with CRMC assent 92-6-18.
- Enforcement staff recommends that a $500 per diem fine be assessed for lots 1229 and 1230, individually, for each day of noncompliance with the Order to Restore.

ATTACHMENTS

A. CRMC Assent 92-6-18 dated June 24, 1992
B. CRMC Preliminary Determination 2017-10-095
C. CRMC Cease and Desist Order 17-0147 dated December 5, 2017

D. All stipulations put forth by DEM's Freshwater Wetlands shall be adhered to as condition of this CRMC assent. Any CRMC approval is null and void for construction outside of Freshwater Wetland's conditions and area of approval.

E. Vegetation on the wetland shall remain in an undisturbed condition.

F. No alterations (vegetative or otherwise) or activities are allowed on the coastal feature(s) or in the waterway adjacent to the site.

G. All driveway and parking areas shall have a permeable pavement and subbase consisting of gravel, crushed stone, shells, or similar highly permeable material.

H. All runoff of surface water into the stipulated buffer zone shall be maintained as sheet flow. No concentrated sources of runoff flow (such as pipes or swales) shall be directed into the buffer zone.

I. This structure shall be connected to and serviced by municipal sewers.

Earthwork Stipulations

J. The standards and specifications set forth in the most recent RI Soil Erosion and Sediment Control Handbook (RISESCH) shall be strictly adhered to.

K. Prior to initiation of any grading, construction, or earthwork activity, a line of staked haybales and/or silt fence (Ref. RISESCH Standard "ST") shall be placed along the Northern and Eastern perimeter of the proposed area of construction or within 140 feet of the inland edge of the coastal feature. (This line shall not be located on a coastal feature nor within a stipulated buffer zone.) Bales shall be "toed in" 4 inches to prevent the underwash of sediments. This line shall be maintained by the replacement of bales as needed and by the proper upland disposal of accumulated sediments. This line shall be effectively maintainted until permanent site revegetation is established. No soils nor any other materials shall be allowed to enter beyond this line, neither temporarily nor permanently.

L. All catch basins and drains in the area, into which sediment laden waters may flow shall be ringed with haybales (toed in 4 inches and staked), or protected per Standard "SD" of the RISESCH. These controls shall be properly maintained by timely removal of accumulated sediment and replacement of bales as needed.

K. All discharges which result from dewatering operations, must flow into sediment traps consisting of staked haybale rings enclosing crushed stone to disperse inflow velocity (Ref. RISESCH Standard "FB"). Haybales shall be "toed in" 4 to 6 inches into the ground to prevent underwash of sediments. These devices shall be maintained by removal and proper disposal of accumulated sediments and by replacement of bales and stone as needed. The devices shall not be located on any coastal feature nor in any designated buffer zone. If necessary, a matting device shall be used below the traps. These devices must be completely removed upon completion of dewatering operations.

Applicant agrees that as a condition to the granting of this assent, members of the Coastal Resources Management Council or its staff shall have access to his property to make on-site inspections to insure compliance with the assent.

All applicable policies, prohibitions, and standards of the RICRMP shall be upheld.

All local, state or federal ordinances and regulations must be complied with.

Please be advised that all work must be completed within three years of the date of this letter (unless written application requesting an extension is received by CRMC sixty (60) days prior to expiration date).

This Assent is granted with the specific proviso that the construction authorized therein will be maintained in good condition by the owner thereof, his heirs, successors, or assigns for a period of fifty (50) years from the date thereof, after which time this permission shall terminate necessitating either complete removal or a new application.

Permits issued by the CRMC are issued for a finite period of time, confer no property rights, and are valid only with the conditions and stipulations under which they are granted. Permits imply no guarantee of renewal, and may be subject to denial, revocation, or modification.

CAUTION:

The limits of authorized work shall be only for that which was approved by the CRMC. Any activities or alterations which deviate from the approved plans will require a separate application and review. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then this permit may be found to be null and void. Plans for any future alteration of the shoreline or construction or alteration within the 200' zone of CRMC jurisdiction or in coastal waters must be submitted for review to the CRMC prior to commencing such activity.

ATTENTION: ALL STRUCTURES IN THE TIDAL, COASTAL, OR NAVIGABLE WATERS OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS ARE SUBJECT TO:

1. The Superior Property Rights of the State of Rhode Island and Providence Plantations in the Submerged and Submersible Lands of the Coastal, Tidal, and Navigable Waters;

2. The Superior Navigation Servitude of the United States;

3. The Police Powers of the State of Rhode Island and the United States to regulate Structures in the Tidal, Coastal, or Navigable Waters.

THE SUBMERGED AND SUBMERSIBLE LANDS OF THE TIDAL, COASTAL, AND NAVIGABLE WATERS OF THE STATE ARE OWNED BY THE STATE AND HELD IN TRUST FOR THE PUBLIC. CONVEYANCE OF THESE LANDS IS ILLEGAL; TITLES PURPORTING TO TRANSFER SUCH LANDS ARE VOID.

ASSENT MAY BE SUBJECT TO STIPULATION "A" CIRCLED BELOW:

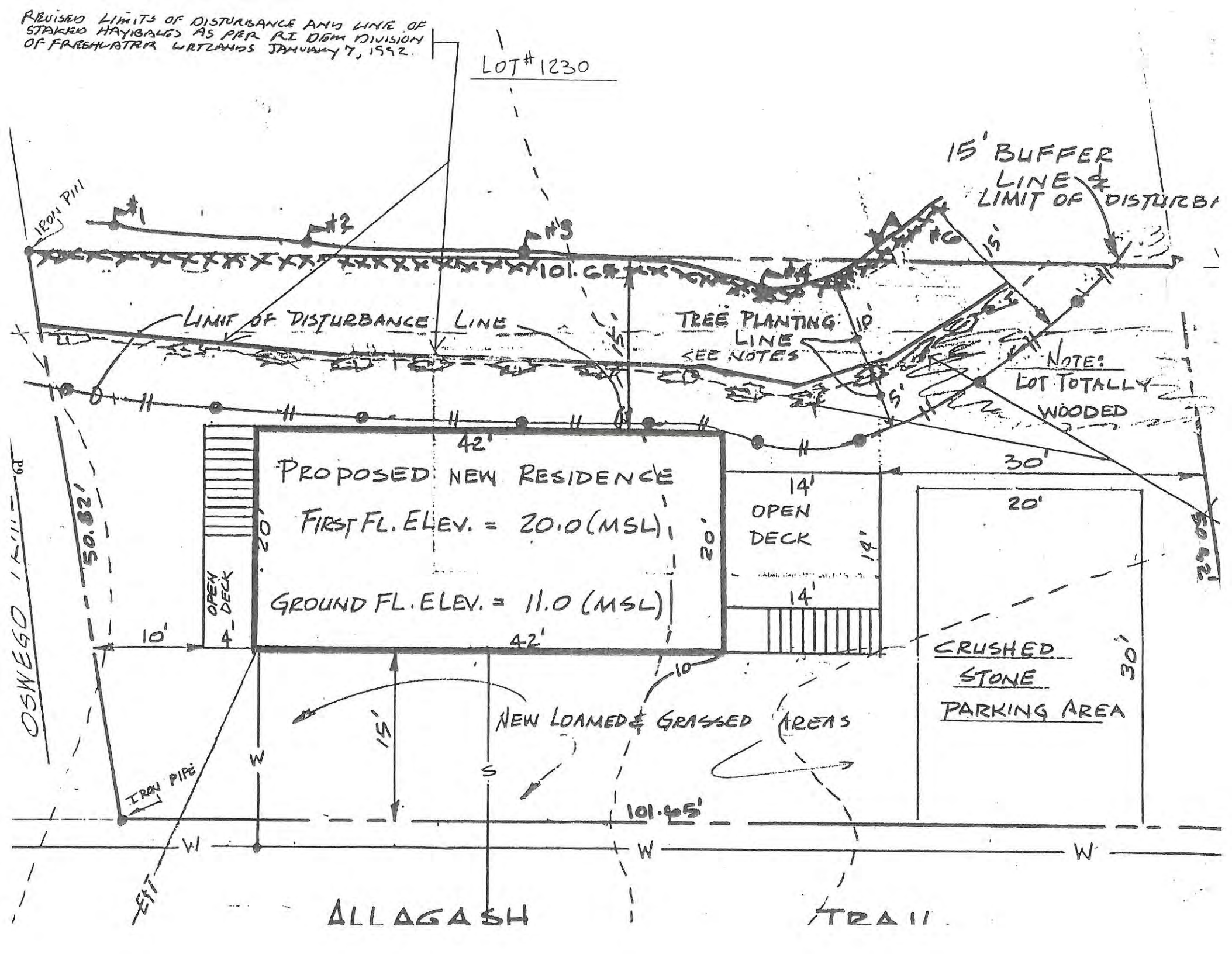
A. In accordance with a decision of the Coastal Resources Management Council on October 9, 1973, this Assent is granted with the proviso that it is subject to the imposition of a usage fee to be established by the Coastal Resources Management Council.

The Coastal Resources Management Council wishes to thank you for being given the opportunity to assess and review these plans. If you need additional information, please feel free to contact this office.

Sincerely yours,

Grover J. Fugate, Executive Director
Coastal Resources Management Council

GJF/lam


REVISED LIMITS OF DISTURBANCE AND LINE OF STAKED HAYBALES AS PER RI DEM DIVISION OF FRESHWATER WETLANDS JANUARY 7, 1992.
LOT # 1230
15' BUFFER LINE & LIMIT OF DISTURBA
IRON PIN
#1
#2
#3
#4
#6
101.65
LIMIT OF DISTURBANCE LINE
TREE PLANTING LINE SEE NOTES
NOTE: LOT TOTALLY WOODED
PROPOSED NEW RESIDENCE
FIRST FL. ELEV. = 20.0 (MSL)
GROUND FL. ELEV. = 11.0 (MSL)
42'
30'
14'
OPEN DECK
20'
14'
OPEN DECK
10'
4'
42'
CRUSHED STONE PARKING AREA
NEW LOAMED & GRASSED AREAS
15'
W
S
IRON PIPE
101.65'
W
W
W
EST
ALLAGASH
TRAIL
OSWEGO
50.82'
50.82'

B

RHODE ISLAND COASTAL RESOURCES MANAGEMENT COUNCIL
REPORT OF FINDINGS -- PRELIMINARY DETERMINATION

STATEMENT OF LIMITATIONS

The contents of this staff determination report shall be valid only for the period on and preceding the date of this report. This report is neither an approval nor denial of the subject proposal. It is an evaluation of CRMC regulations in effect as of **November 27 2017** as they pertain to the below stated proposal, including preliminary staff recommendations.

Modifications to the below stated proposal may, upon the discretion of the CRMC, render this determination null and void.

APPLICANT INFORMATION

NAME: Buz & Cynthia Gardiner **CRMC FILE NO.** D2017-10-095
LOCATION/POLE: 120 Allagash Trail
CITY/TOWN: Narragansett **PLAT:** N-R **LOT:** 1229,1230

CONTACT PERSON(S) & ADDRESS:

Buz & Cynthia Gardiner
120 Allagash Trail
Narragansett, RI 02879

David D'Amico PE
2080 Mineral Spring Ave
North Providence RI 02911

Brian Harrington
CRMC Enforcement
4808 Tower Hill Rd
Wakefield RI 02879

PRELIMINARY REVIEW INFORMATION

PROPOSAL: Addition to existing dwelling

PLAN(S) REVIEWED: "Proposed Home Addition 120 Allagash Trail...." dated Sept 2017 by D'Amico Engineering Technology, Inc.

INVESTIGATOR	DATE	TIME
Amy Silva	11/22/17	9:30
	11/27/17	10:00

MEASUREMENTS & OBSERVATIONS: general observations

PREVIOUS CRMC ACTIONS FOR SITE:
1990-12-049: Gardiner; Sewer Tie-in
1992-06-018: New Dwelling
91-0491D: DEM/FWW New Dwelling

NAME: **Gardiner**
CRMC FILE NUMBER: **D 2017-10-095**

Preliminary Buffer and Setback Requirements:

SETBACK (ref. Section 1.1.7 CRMP) 50 feet as measured from the inland edge of the coastal feature
BUFFER (ref. Section 1.1.9 CRMP) N/A

Note: **Setbacks** apply to "construction related activities" including filling, removing, and grading (ref: Section 1.3.1(B) CRMP). The coastal program requires a minimum setback of either 50', or the buffer zone width plus 25' (whichever is greater). Work within this minimum setback will require a variance per Section 1.1.5 of the CRMP. All variances must be requested in writing. No construction or construction related work shall occur within the required setback (exemptions include structural shoreline protection, outfalls and water dependant uses). Work within the required setback may require a Category "B" review (public notice and decision by the full coastal council) and would likely result in adverse CRMC staff recommendations to the Coastal Council during the review process.
Buffer zones are areas that must be retained in, or allowed to revert to, "an undisturbed natural condition." All structures (excluding accessory structures) should be setback a minimum of 25' from the buffer zone to allow for access, fire protection and maintenance without infringement into the buffer.
If applicable, the plan must show "area of land within 50 feet" in accordance with Rule 5.04 of The Rules and Regulations Governing the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast (the Rules), and label this area as a "buffer zone" in accordance with Rule 5.14. In addition, no activities (such as: drainage, grading, filling, etc.) may affect the freshwater wetland or the buffer zone. Where such alterations occur, or are proposed, an application shall be submitted in accordance with CRMC's Freshwater Wetland Rules.

Coastal feature verification shall be valid for one-year from the date of this Determination or until an erosion event (e.g., due to storm event, landslide, man-induced alteration, etc.) occurs that alters the coastal feature.

SUMMARY OF FINDINGS

CRMC JURISDICTION: YES NO
TYPE WATER: 2; Low Intensity use/Wesquage Pond

For the purpose of this review the coastal feature(s) shall be: Coastal Pond backed by Coastal Wetland and the inland edge of coastal(s) feature shall be: the inland edge of the Coastal Wetland

Applicability of CRMP and SAM Plans (as amended):

CRMP Sections: 1.1.3.D; 1.1.7; 1.2.1.B; 1.2.2.C; 1.1.3; 1.3.1.C; 1.3.1.F; 1.3.5
SAMP: N/A

FWWVC JURISDICTION: YES NO
WETLAND TYPE: Shrub Wetland; intermittent stream, 100 foot jurisdictional area

STAFF CONCERNS/COMMENTS/INFORMATION REQUIREMENTS:

The wetland depicted on the submitted plans is not considered accurate.

Please be advised that DEM FWW Permit 92-0493D and CRMC Assent 1992-06-018 (Issued to Buz & Cynthia Gardiner) identified a freshwater wetland on site. The DEM Permit required the planting of a row of Northern White Cedar along a revised Limit of Disturbance (LOD) and a 15 foot buffer zone (portion of plan is attached). These shrubs are not in place and both the buffer required by the DEM permit and the identified freshwater wetland have been altered. The wetland depicted on the 1992 approved plans is now maintained as lawn area. This area appears to have been gradually cleared during the 2000s based on Google Earth Imagery. This wetland is now under the jurisdiction of the CRMC and the violation (alteration of the wetland) as well as this report have been forwarded to CRMC Enforcement Staff.

NAME: **Gardiner**
CRMC FILE NUMBER: **D 2017-10-095**

Please be advised that General Stipulation "G" of CRMC Assent 1992-06-018 required that the driveway be permeable. The driveway is currently paved and not located as shown on the approved plans. This driveway shall require stormwater management, as well as inclusion "as-built" on any future Assent submission.

Please be advised that CRMC Assent 1992-06-018 permitted a 14'x14' deck. The deck on the submitted plans is 20'x19'. Please include this un-Assented change to the deck in future Assent submission request.

Please be advised that as proposed, the addition shown on the submitted plans falls within the wetland identified by and buffer zone required by previous Assent. The addition will not receive staff support for approval in the proposed location. Approval for the addition in the proposed location will require the submission of a Formal Application to Alter Freshwater Wetlands in accordance with the FWWVC program, to keep the altered wetland in its current altered state, and is not likely to receive staff support.

Should the applicant revise the addition to fall outside the wetland area (within the location of the existing deck is most likely), the following shall apply:

The property falls within the jurisdiction of both the RICRMP and the FWWVC regulations. One single application should be submitted to this office – a RICRMP Assent application, which includes FWW Impact and Avoidance Statement in accordance with Rule 9.02.D of the FWWVC Regulations.

The proposed addition is greater than 600ft^2 in size. Stormwater management/treatment is required for all new impervious areas/areas greater than 600ft^2. No concentrated flows shall be allowed to coastal features, freshwater wetland features and/or coastal waters. All new driveways shall be permeable or shall have stormwater management for the first half inch of runoff. Treatment of the runoff shall be in accordance with RICRMP Section 300.6 and the Rhode Island Stormwater Design and Installation Standards Manual.

Prior to submittal for assent, all local and town approvals must be obtained, as well as OWTS approval from DEM/OWTS. Submitted plans must show all associated work with the proposed project such as earthwork, filling, removing or grading (RICRMP Section 300.2), driveway improvements (Section 300.6), utilities, associated landscaping and erosion and sedimentation controls. Guidance for stormwater management can be found on CRMC's website at: http://www.crmc.ri.gov/stormwater.html

In addition, a written Impact Avoidance & Minimization Statement in accordance with Rule 9.02 of the Freshwater Wetlands in the Vicinity of the Coast Program would be required for any impacts to identified freshwater wetlands on the subject property

A "CRMC Assent Application" form may be obtained from CRMC's website at http://www.crmc.ri.gov/applicationforms.html. An application checklist is provided with the Assent Application form. Please also provide a "Building Official's Form" (also found at the above link).

SIGNATURE: _____ **STAFF BIOLOGIST**

C

State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

December 5, 2017

Buz & Cynthia Gardiner
120 Allagash Trail
Narragansett, RI 02879

Cease and Desist Order

Dear Mr. and Mrs. Gardiner:

Under the regulations of the Rhode Island Coastal Resources Management Program (RICRMP), any construction, grading, or filling activities or other alterations within 200 feet of coastal feature associated with tidal waters or coastal ponds of the state or in CRMC's freshwater wetlands in the vicinity of the coast jurisdiction, requires plans for the proposed work be submitted to the Coastal Resources Management Council (CRMC) for review, evaluation, and comment prior to the proposed activity. Failure to do so is a violation of the RICRMP. After evaluation of the plans by CRMC staff, their comments and the requirements for the proposed activities are forwarded to the applicant.

It has come to the attention of the CRMC that you or your agent have undertaken alteration of the buffer zone and wetland on your property located at Plat N-R, Lots 1229,1230, 120 Allagash Trail, Narragansett without benefit of a CRMC assent or in violation of a Council order.

This activity is in violation of the Rhode Island Coastal Resources Management Program. You are hereby issued a Cease and Desist Order Number 17-0147, dated December 5, 2017, and ordered to cease all activity at this site and to contact this office within 10 days of the date of this letter.

Failure to comply with this order shall be a violation of a duly adopted Council regulation, and subject to all fines and penalties established by law. Each day of noncompliance shall be deemed a separate and distinct violation in accordance with Section 46-23-7, G.L.R.I.

Sincerely yours,

Laura Miguel

Laura Miguel, Enforcement
Coastal Resources Management Council

/lat

CERTIFIED RECEIPT REQUESTED
7016 3010 0000 1678 0727

D

State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

August 3, 2018

Cynthia Gardiner
120 Allagash Trail
Narragansett, RI 02879

Notice of Administrative Fine

Violation Site: Oswego Trail, Narragansett
Plat: N-R Lot: 1230

Violation File No.: 17-0147

Dear Mrs. Gardiner:

On December 5, 2017, CRMC staff visited Plat N-R, Lot 1230, Oswego Trail, Town of Narragansett, and discovered that you or your agent have undertaken alteration of the wetland in violation of CRMC assent 92-6-18.

In accordance with per Rhode Island General Laws Sections 46-23-7 and 46-23-7.1, you are hereby assessed an Administrative Fine of $2,500. In addition, a per diem fine of $500 for each day can be assessed during which this violation continues.

You have the right to file an appeal for an Administrative Hearing, within 21 days from the receipt of this notice. The request for an Administrative Hearing must be delivered to the Council at the above address, in writing within this 21 day period. This request shall specify in detail the statements contested by you. Additionally, this request must contain a valid phone number or e-mail address where we can contact you when necessary. If no hearing is requested after the expiration of 21 day period, the Council shall issue a final order assessing the penalties specified in the notice. The penalty is due when the final order is issued.

Please be advised that the levy of this fine does not preclude any further Council action regarding this violation. In addition, should the Council determine there are other violations on said property, you may be assessed additional administrative fines. This notice of administrative fine will be filed in the land evidence records.

Jeffrey M. Willis, Deputy Director
Coastal Resources Management Council

/ajt-LM
Certified Receipt Requested
70163010000016781496

H

From: Scott Rabideau [mailto:nrsscott@gmail.com]
Sent: Tuesday, July 31, 2018 10:22 AM
To: Laura Miguel
Cc: gardinerconstinc@aol.com
Subject: Re: CRMC Enforcement Matter; Buz Gardiner

Laura,

I had the opportunity to speak with Mr. Gardiner last week regarding the wetland restoration plan and submission of an after-the-fact freshwater permit to the CRMC. Mr. Gardiner has directed me to inform you that he has decided not to pursue this restoration/permit option. I have informed him that by not meeting the July 31 CRMC deadline for submission of a restoration plan, the matter will likely be placed on an enforcement hearing calendar. I have recommended that he engage legal counsel to assist him with any enforcement hearing.

At this point, my engagement with Mr. Gardiner on this matter is concluded. I have made sure to copy him on this email so you can reach out to him direct on future correspondences.

Do not hesitate to contact me with any questions.

Best regards,
Scott

Scott P. Rabideau, PWS
President, Natural Resource Services, Inc.
(401) 568-7390

PHOTOS

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PUBLIC HEARING ON PROPOSED AMENDMENTS TO THE COASTAL RESOURCES MANAGEMENT PROGRAM: _____

RHODE ISLAND GOVERNMENT REGISTER
PUBLIC NOTICE OF PROPOSED RULEMAKING

COASTAL RESOURCES MANAGEMENT COUNCIL

Title of Rule: Red Book (650-RICR-20-00-01)

Rule Identifier: 650-RICR-20-00-1

Rulemaking Action: Proposed Amendment

Important Dates:
Date of Public Notice: 08/16/2018
Hearing Date: 09/11/2018
End of Public Comment: 09/17/2018

Authority for this Rulemaking:
R.I. Gen. Laws Chapter 46-23 et seq.
Coastal Zone Management Act 16 U.S.C. §§ 1451 through 1464

Summary of Rulemaking Action:
The purpose of this proposed rule is to amend and consolidate the current Red Book [650-RICR-20-00-1] with existing requirements and standards of the CRMC "Guidelines for the Development of Municipal Harbor Management Plans" [ERLID # 5719] and incorporate desirable elements of the CRMC's "Energy Amendments" [ERLID # 1060]. The CRMC will concurrently repeal those rules [ERLIDs # 1060 and 5719]. Additionally, a number of amendments are proposed as listed below.

1. Correct definition at § 1.1.2(A)(1) to more accurately define CRMC jurisdiction for certain activities in accordance with R.I. Gen. Laws § 46-23-6. No change in status quo of regulations.

2. Add new definitions in § 1.1.2(A) for (10) "approved waters"; (144) "seed"; (148) "shellfish stock"; (153) "spat"; (154) "spat collection"; (171) "upweller"; and (180) "wild stock" for consistency with amended aquaculture rules in § 1.3.1(K). The amendments clarify previously agreed upon responsibilities and duties between the DEM and CRMC via codification of long-standing, existing practices; no new requirements. No change in status quo of regulations.

3. Add new definitions in § 1.1.2(A) for (9) "approved harbor management plan"; (17) "boat"; (38) "corner buoys"; (74) "global positioning system"; (76) "harbor commission"; (77) "harbormaster"; (97) "moor"; (98) "mooring"; (99) "mooring area"; (133) "RI state plane coordinate system of 1983"; and (173) "vessel" for consistency with amended municipal harbor regulations in § 1.3.1(O). No change in status quo of regulations; § 1.3.1(O) amendments are consistent with existing CRMC guidance and long-standing practice.

17. Add requirements for applicants in § 1.1.3 (originally in Red Book introduction section). No change in status quo of regulations.

18. Add "dunes" to § 1.1.4(A)(4) to correctly list all CRMC shoreline features. No change in status quo of regulations.

19. Amend § 1.1.4(B) to correct the CRMC categories and activities in accordance with R.I. Gen. Laws § 46-23-6. No change in status quo of regulations.

20. Amend § 1.1.4(C)(1) to accurately specify which CRMC SAMPs are critical coastal areas and the activities subject to CRMC jurisdiction within those SAMPs. No change in status quo of regulations.

21. Modify § 1.1.4(D) for consistency with CRMC freshwater wetlands in the vicinity of the coast. No change in status quo of regulations.

22. Amend matrices for water types 1-6 to modify the definition of "recreational mooring areas" in § 1.1.5 to cover all mooring areas, not just recreational mooring areas. No change in status quo of regulations.

23. Add new § 1.1.6(I) for coastal hazard analysis application requirements. Amendment driven by new Council adopted Shoreline Change (beach) SAMP guidance document. While applicants will be required to use the CRMC online tools, it will not add additional cost to the application. The resulting analysis will be informative for the applicant and will not be used to approve or deny a project.

24. Add new § 1.1.9(D) for setback requirements involving demolition to be consistent with existing requirement in § 1.1.11 of this Part. No change in status quo of regulations.

25. Amend § 1.1.10(A)(4) to incorporate 2017 NOAA sea level rise scenario and replace outdated 2012 data. No change in status quo of regulations.

26. Amend § 1.1.11(B) to incorporated buffer policies from findings. No change in status quo of regulations.

27. Amend § 1.1.11(D) to incorporate long-standing buffer management standards from the CRMC buffer zone management guidance document. No change in status quo of regulations.

28. Add new § 1.1.11(E) to incorporate long-standing buffer pathway prohibition consistent with CRMC buffer zone management guidance document. No change in status quo of regulations.

29. Amend § 1.1.12(E)(1) to eliminate transient aquaculture gear lease fees (no longer acceptable method). No change in status quo of regulations.

30. Amend § 1.2.2(C)(1)(a) to add contiguous freshwater wetlands protected under the program consistent with existing definition. No change in status quo of regulations.

31. Amend § 1.2.2(D)(1)(a) to add coastal bluff policy from findings. No change in status quo of regulations.

32. Amend §§ 1.2.2(F)(1)(a) and (e) to add manmade shoreline policy from findings. No change in status quo of regulations.

33. Amend §§ 1.2.2(G)(1)(a), (b) and (d) to add dune policy from definition and findings. No change in status quo of regulations.

34. Amend § 1.3.1(A)(1) to make Category B application requirements of the Red Book necessary data and information (NDI) as part of federal consistency reviews. The amendment clarifies existing requirements for federal consistency applicants (federal consistency applicants do not pay an application fee); no change in status quo of regulations.

35. Amend § 1.3.1(B)(1)(a) to exempt agricultural practices under this subpart consistent with the definition moved to § 1.1.2. No change in status quo of regulations.

36. Add new § 1.3.1(C)(4)(b) to codify existing practice of fitness of purpose analysis for commercial marine facilities consistent with CRMC guidance document and in accordance with R.I. Gen. Laws § 46-23-6(4)(vi). No change in status quo of regulations, as amendment is consistent with CRMC guidance document and in accordance with R.I. Gen. Laws § 46-23-6(4)(vi).

37. Amend § 1.3.1(D)(3)(h) to address previously authorized docks. Further clarification of existing rules from Pre-existing Residential Boating Facilities Program (now repealed as part of Red Book consolidation). No change in status quo of regulations.

38. Amend § 1.3.1(D)(7)(b) to address docks in Type 1 waters. Further clarification of existing rules from Pre-existing Residential Boating Facilities Program (now repealed as part of Red Book consolidation). No change in status quo of regulations.

39. Add new § 1.3.1(F)(1)(h) to address maximum extent practicable standards found in the definition "maximum extent practicable" (now in § 1.1.2). This portion of definition is policy. No change in status quo of regulations.

40. Amend § 1.3.1(F)(4)(b) to delete anachronistic text. No change in status quo of regulations.

41. Amend § 1.3.1(H) to incorporate desirable elements of the CRMP's Energy Amendments (adopted in 1978, formerly § 600 of the CRMP) and requirement for certified verification agent (as already required by 650-RICR-20-05-11) for energy-related facilities. See cost/benefit analysis.

42. Amend § 1.3.1(I) to address upland and in-water dredge material disposal. Add new standards in 1.3.1(I)(5)(d)for disposal within CAD cells. No change in status quo of regulations, as dredge operators already follow long-standing CRMC guidance and permit conditions.

43. Amend § 1.3.1(J) to add filling in tidal water policies previously in definition. No change in status quo of regulations.

44. Amend § 1.3.1(K) for consistency of current practices and policies for aquaculture by CRMC and DEM. Clarification of responsibilities and duties between the state regulatory agencies; no new requirements. No change in status quo of regulations.

45. Amend § 1.3.1(N) to add requirement for inspection and analysis consistent with CRMC "Guidelines for Fitness of Purpose Investigations and Certifications" if maintenance history indicates is necessary. No change in status quo of regulations, as amendments are consistent with CRMC guidance document and in accordance with R.I. Gen. Laws § 46-23-6(4)(vi).

46. Amend § 1.3.1(O) to integrate regulatory elements of the CRMC "Guidelines for the Development of Municipal Harbor Management Plans." No change in status quo of regulations as amendments codify long standing CRMC practice and are consistent with existing CRMC guidance.

47. Amend § 1.3.1(Q) to add wetland walkover policy from findings. No change in status quo of regulations.

48. Amend § 1.3.1(R) to add submerged aquatic vegetation policy from findings. No change in status quo of regulations.

49. Amend § 1.3.3 for consistency with R.I. Gen. Laws § 46-23-6. No change in status quo of regulations.

50. Amend § 1.3.4 to add critical coastal areas policy from findings. No change in status quo of regulations.

51. Amend § 1.3.5 to change guidelines to polices. No change in status quo of regulations.

52. Amend § 1.3.6 to add important public access policy from findings. No change in status quo of regulations.

53. Add new § 1.5 Public and Government Participation, which is an existing section of the CRMP and formerly known as CRMP § 700 to be consolidated with the Red Book. No change in status quo of regulations.

54. Amend § 1.6(R) for Bristol water type map change. No change in status quo of regulations as water type change is more permissible and affects only RWU property, as requested by the University.

55. Amend § 1.7 to add nine (9) new Block Island shoreline change maps. No change in status quo of regulations, as changes only add more precise erosion rates for more predictable application process and permitting efficiency.

Additional Information and Comments:
All interested parties are invited to request additional information or submit written or oral comments concerning the proposed amendment until September 17, 2018 by contacting the appropriate party at the address listed below:

James Boyd
Coastal Resources Management Council
RI Coastal Resources Management Council
4808 Tower Hill Road
Wakefield, RI 02879
jboyd@crmc.ri.gov

Public Hearing:
A public hearing, in accordance with R.I. Gen. Laws § 42-35-2.8, to consider the proposed amendment shall be held on September 11, 2018 at 6:00 pm at Department of Administration, Conference Room A, One Capitol Hill, Providence, RI 02908 at which time and place all persons interested therein will be heard. The seating capacity of the room will be enforced and therefore the number of persons participating in the hearing may be limited at any given time by the hearing officer, in order to comply with safety and fire codes.

The place of the public hearing is accessible to individuals who are handicapped. If communication assistance (readers/interpreters/captioners) is needed, or any other accommodation to ensure equal participation, please call 401-783-3370 or RI Relay 711 at least three (3) business days prior to the meeting so arrangements can be made to provide such assistance at no cost to the person requesting.

Regulatory Analysis Summary and Supporting Documentation:

In the development of the proposed adoption consideration was given to: (1) alternative approaches; (2) overlap or duplication with other statutory and regulatory provisions; and (3) significant economic impact on small business. No alternative approach, duplication, or overlap was identified based upon available information. Additionally, the benefits of the proposed amendments justify any costs of the proposed rule, and the proposed amendments will achieve the objectives of the authorizing statute in a more cost-effective manner, or with greater net benefits, than other regulatory alternatives.

For full regulatory analysis or supporting documentation see agency contact person above.

650-RICR-20-00-1

TITLE 650 – COASTAL RESOURCES MANAGEMENT COUNCIL

CHAPTER 20 – COASTAL MANAGEMENT PROGRAM

SUBCHAPTER 00 – N/A

PART 1 – Red Book

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1.1 Authorities and Purpose, Definitions and Procedures

1.1.1 Authority and Purpose

A. Pursuant to the federal Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 through 1466) and R.I. Gen. Laws Chapter 46-23 the Coastal Resources Management Council is authorized to develop and adopt policies and regulations necessary to manage the coastal resources of the state and 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 from coastal hazards. Further, the Council is 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. Gen. Laws §§ 23-27.3 through 100.1.5.5.

B. The regulations herein constitute the RICR regulatory component of the Coastal Resources Management Program Red Book and must be read in conjunction with the Red Book guidance document containing the findings and other non-regulatory components for the full and proper context that forms the basis and purpose of this Part. The Red Book guidance document should be employed in interpreting R.I. Gen. Laws § 46-23-1, *et seq.*

1.1.2 Definitions

A. Definitions for this Part are as follows:

1. "Activities and alterations inland of shoreline features and their contiguous areas within state boundaries that may require a Council Assent" means: solid waste disposal; minerals extraction; ~~chemical processing, transfer, and storage~~; power generation ~~(excluding facilities of less than a~~over forty (40) megawatts~~ capacity)~~; chemical and petroleum processing, transfer, and storage (excluding storage facilities of less than 2,400 barrel capacity); and sewage treatment and disposal (excluding ~~individual sewage disposal~~onsite wastewater treatment systems) desalination plants, and activities affecting freshwater wetlands in the vicinity of the coast. (Note: changes here reflect jurisdiction as specified in RI Gen. Laws § 46-23-6)

2. "Agency" means 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.

3. "Agricultural land" means:

   a. tilled or tillable land upon which a crop is being or has recently been produced;

b. actively managed orchards, nurseries and cranberry bogs, and

c. land used for livestock pasturing.

4. "Alteration of a marina" means any activity that result 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.

5. "Alterations to coastal wetlands" means, but shall not be limited to: filling, removing or grading; dredging and dredged materials disposal; and any significant cutting or removal of vegetation; and excavation, draining, damming and/or diverting of hydrological flows in a coastal wetland. 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.

6. "Alterations to the circulation of tidal waters" means 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.

7. "Alterations to the flows of tributaries" means 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.

8. "Anadromous fish" means oceanic or estuarine species that spawn in fresh water.

9. "Approved harbor management plan" or "HMP" means a plan that has been prepared by a municipality in accordance with the CRMC municipal harbor regulations and CRMC Guidelines for the Development of Municipal Harbor Management Plans, adopted by a city or town council, and approved by the Coastal Resources Management Council.

10. "Approved waters" means marine waters of the state classified by RIDEM as approved areas fit for the taking of shellfish for human consumption on a regular basis according to criteria established by the National Shellfish Sanitation Program.

~~9~~11. "Aquaculture" (refer to definitions of "marine aquaculture" and "freshwater aquaculture" in § 1.1.2 of this Part herein.)

~~10~~12. "Areas of historic and archaeological significance" means ~~historic and archaeological~~those 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~~as defined by R.I. Gen. Laws § 45-22.2-4(12).

~~11~~13. "Associated residential structures" means, but is 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.

~~12~~14. "Barrier" means and island or spit 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, back barrier 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, cuspate, 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". 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 5 in § 1.2.2(C) of this Part. In these federally designated areas, flood insurance for most forms of construction is not available. Many of the state's barriers have been mapped and assigned by the Coastal Resources Management Council into three categories as follows:

a. "Undeveloped barrier" means those essentially free of commercial/industrial buildings, (excluding public utility lines) houses, surfaced roads, and structural shoreline protection facilities.

b. "Moderately developed barrier" means 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.

c. "Developed barriers" mean those that contain houses and/or commercial/industrial structures; they may also contain surfaced roads and structural shoreline protection facilities.

~~13~~15. "Beach grass" means the dominant vegetative cover of sand dunes (*Ammophila* spp.).

~~14~~16. "Beach pavilion" means a 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.

17. "Boat" means any vessel or watercraft as defined by R.I. Gen. Laws § 46-12-1(1).

~~15~~18. "Boat and float lift systems" means accessory structures to residential boating facilities that raise either a boat or float out of the water to facilitate safety and/or maintenance. 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. 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.

~~16~~19. "Boat or vessel count" means 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~~20. "Breachway" means a connecting channel, usually between a coastal pond and the ocean, which permits water exchange between the two.

~~18~~21. "Breakwater" means either an exposed or submerged structure 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.

~~19~~22. "Buffer zone" means a land area on or contiguous to a shoreline feature that is retained in its natural undisturbed condition.

~~20~~23. "Bulkhead" means 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.

24. "Certified verification agent" or "CVA" means an independent third-party agent that shall use good engineering judgment and practices in conducting an independent assessment of the design, fabrication and installation of an energy-related activity as defined in this Part.

~~21~~25. "Climate" means 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.

~~22~~26. "Coastal beaches" means 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.

~~23~~27. "Coastal buffer zone" means 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 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. The coastal buffer zone is generally contained within the established construction setback.

~~24~~28. "Coastal headlands, bluffs, and cliffs" means elevated land forms on headlands directly abutting coastal waters, a beach, coastal wetland, and rocky shore.

~~25~~29. "Coastal environment" means the complete system of living organisms and physical surroundings within the waters and shore lands of estuaries, the nearshore ocean and the terrestrial areas influenced by this system.

~~26~~30. "Coastal pond" means a coastal lagoon usually located behind a barrier which, in its natural condition, permanently or occasionally exchanges waters with the ocean.

~~27~~31. "Coastal wetland" means salt marshes and freshwater or brackish wetlands contiguous to salt marshes or physiographical 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.

~~28~~32. "Coastal wetland creation" means the construction of a new coastal wetland where one had not previously existed.

~~29~~33. "Coastal wetland mitigation" means mitigation 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.

~~30~~34. "Commercial and industrial structures and operations" means all buildings and alterations to such features related to the manufacturing and interchange of goods or commodities, or any other business activity located on a shoreline feature, its contiguous area, or within tidal waters.

35. "Commercial marine facility" or "CMF" means, but is not limited to, commercial structures located partially or wholly within CRMC Type 4, 5 or 6 waters such as bridges, commercial moorings, ship building or repair facilities, public ferry facilities, piers, wharfs, bulkheads, bulk and liquid cargo transfer facilities or other commercial type structures within CRMC jurisdiction that may warrant certification for protection of public trust resources.

~~31~~36. "Compelling public purpose" means of such concern to the public welfare that it outweighs private of individual interests.

~~32~~37. "Contiguous brackish wetlands" means 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 (*Hierochloe odorata*), wild rye (*elymus virginicus*).

~~33~~38. "Contiguous freshwater wetlands" means those wetlands which border directly on salt marshes or brackish wetlands or physiographical 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. Gen. Laws § 2-1-18 *et seq.*).

39. "Corner Buoys" means buoys that mark the intersection points of mooring area perimeter limits.

~~34~~40. "Council" means the Rhode Island Coastal Resources Management Council.

~~35~~41. "Council meeting" means any meeting of the full Council or a subcommittee.

~~36~~42. "Council representative" means a person appointed or employed as the Council's representative or agent.

~~37~~43. "Critical coastal areas" means watersheds of poorly flushed estuaries, and are geographic areas which may vary in their ecological functions and generally require specific initiatives to manage them.

~~38~~44. "Depositing shore" means a shore which is accumulating sand or other sediments, as opposed to a shore which is eroding.

~~39~~45. "Destination harbor" means a harbor in which the primary use is by people arriving by vessel. The following are considered destination harbors: Newport Harbor and Old and New Harbors on Block Island.

~~40~~46. "Development" means 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.

~~41~~47. "Direct federal activities" means 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 Bureau of Ocean Energy Management; improvements to military bases; and naval disposal of radioactive or hazardous waste performed by a private contractor.

~~42~~48. "Discharge" means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping either directly or indirectly to the waters of the state of Rhode Island.

~~43~~49. "Dredging" means 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.

~~44~~50. "Dredged materials disposal" means the process of discharging, depositing, dumping, or utilizing the sediments produced by a dredging operation.

~~45~~51. "Dune" means an elevated accumulation 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.

~~46~~52. "Ecosystem" means a system formed by the interaction of a community of organisms with their environment.

~~47~~53. "Eelgrass" or "*Zostera marina*" means a marine vascular plant capable of both vegetative and sexual growth. Eelgrass can occur in salinity ranges averaging 5-36 practical salinity units and in depths of less than one meter to six (6) meters in Rhode Island waters at MLW depending on water clarity.

~~48~~54. "Effluents" means the outflow from a river, a pipe, or other watercourse.

~~49~~55. "Energy-related activities" means all operations and construction of structures involved in power generation and petroleum processing, transfer, and storage ~~on a shoreline feature or its contiguous area or within tidal waters~~.

~~50~~56. "Enforceable policies" means 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 U.S.C. § 1453(6a)).

~~51~~57. "Environmental site conditions" means all elements, environmental, engineering and geologic that affects 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.

~~52~~58. "Erosion and sediment control plan" or "ESCP" means 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.

~~53~~59. "Estuary" means 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.

~~54~~60. "Eutrophication" means nutrient enrichment to the aquatic environment, leading to excessive growth to aquatic plants, which can detrimentally alter water quality parameters, particularly oxygen concentration.

~~55~~61. "Existing hospitality industry business" means for CRMP purposes an existing hospitality industry business that is 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 March 3, 2015. Qualifying hospitality industry business are one of the following: a resort, restaurant, or hotel that provides services to the general public including tourists where such services are dependent upon a view of the shoreline to support their business.

~~56~~62. "Fauna" means animal life.

~~57~~63. "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.

~~58~~64. "Federal license" or "federal permit" 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.

~~59~~65. "Filling in tidal waters" means 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 § 1.3.1(l) of this Part.

~~60~~66. "Filling, removing, or grading of shoreline features" means:

a. "Filling" means the deposition of materials of upland origin onto shoreline features or their contiguous areas.

b. "Removing" means the process of taking away, including excavation, blasting, or mining, any portion of a shoreline or its contiguous area.

c. "Grading" means the process whereby fill or the soils of a shoreline or its contiguous area are redistributed or leveled.

~~61~~67. "Fixed terminal section" means 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.

~~62~~68. "Floating business" means 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.

~~63~~69. "Flora" means plant life.

~~64~~70. "Footprint" means the square footage of the ground floor area encompassed by the structural foundation of a building.

~~65~~71. "Freshwater aquaculture" means 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.

~~66~~72. "Freshwater wetland" means those wetlands defined by R.I. Gen. Laws § 2-1-20(8), and ~~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.~~ Aany 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; and any wetlands created, altered or modified after July 16, 1971. (Note: Definition modified for consistency with 2015 amendments to state freshwater wetland act.)

~~67~~73. "Functional residential boating facility" means a facility that has been in continuous uninterrupted use.

~~68~~74. "Glacial till" means unconsolidated and unsorted material left by the movement of glaciers, consisting of clay, sand, gravel, and boulders.

75. "Global Positioning System" or "GPS" means a navigational system using satellite signals to fix the location of a receiver on or above the earth's surface.

~~69~~76. "Groin" means 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.

77. "Harbor Commission" means a commission or locally appointed body which is responsible for the development and/or implementation of a local municipal harbor management plan.

78. "Harbormaster" means the person identified within the local harbor management plan to assist in the implementation of the approved HMP.

~~70~~79. "Historic and archaeological resources" means 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 and Heritage Commission.

~~71~~80. "Horizontal datum" means either a fixed benchmark or a site-specific control point 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.

~~72~~81. "Houseboat" means a building constructed on a ~~raft~~float, barge, or hull ~~that is used primarily for single or multiple family habitation; if used for transportation this use is secondary~~ as defined in R.I. Gen. Laws § 46-22-9.1.

~~73~~82. "Hydrologic" means related to water.

~~74~~83. "Jetties" means 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.

~~75~~84. "Larva" means the early form of an animal that at birth or hatching is fundamentally unlike its parent and must metamorphose before assuming the adult form.

~~76~~85. "Launching ramp" means a manmade or natural facility used for the launching and retrieval of boats.

~~77~~86. "License" means the whole or part of any agency permit, certificate, approval, registration, charter, or similar form of permission required by law, not including those required solely for revenue purposes.

~~78~~87. "Limited marina" means any facility marina intended for use by recreational vessels with a boat count between five (5) and twenty five (25).

~~79~~88. "Limited recreational boating facilities" means a pier, dock ramp or float, or combination of such facilities constructed in accordance with the standards for residential boating facilities herein (§ 1.3.1(D) of this Part), 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.

~~80~~89. "Longshore current" means a current that flows parallel and adjacent to the shoreline.

~~81~~90. "Low impact development" or "LID" means 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, green roofs, rainwater collection systems for water reuse, and other similar methods.

~~82~~91. "Maintenance of structures" means the 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 § 1.3.1(D) of this Part.

~~83~~92. "Manmade shoreline" means those shorelines that are 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.

~~84~~93. "Marina" means any dock, pier, wharf, float, floating business, or combination of such facilities that accommodate five or more recreational boats.

~~85~~94. "Marina perimeter limit" or "MPL" means a defined perimeter based on in water facilities which defines and limits the area for structures to be located.

~~86~~95. "Marine aquaculture" means 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 § 1.3.1(C) of this Part.

~~87~~96. "Marine railway" or "slipway" means 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.

~~88~~97. "Maximum extent practicable" or "MEP" 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:

a. all reasonable efforts have been made to meet the standard in accordance with current local, state, and federal regulations;

b. a complete evaluation of all possible management measures has been performed; and

c. if full compliance cannot be achieved, the highest practicable level of management is being implemented.

98. "Moor" means to permanently secure a vessel to the submerged land of a waterbody by use of mooring tackle.

99. "Mooring" means the location where a vessel is secured to the submerged land of a waterway by mooring tackle.

a. "Private mooring" means a mooring rented by a resident or nonresident of a municipality under a permit granted by said municipality, and which is located within a CRMC approved mooring field.

b. "Riparian mooring" means a mooring rented by a riparian property owner under a permit granted by a municipality located within coastal waters bordering that property as bounded by the seaward

extension of that property's lateral lot lines. Said mooring may or may not be located within a CRMC approved mooring field.

c. "Commercial mooring" means a mooring rented by a commercial entity (e.g., marina, yacht club, etc.) under a permit granted by a municipality to residents or nonresidents, and which is located within a CRMC approved mooring field.

100. "Mooring Area" means a designated water area managed by a municipality or non-governmental entity where five (5) or more recreational vessels are moored.

a. "Public mooring area" means those mooring areas managed by municipal or state agencies. Public mooring areas shall be delineated in approved HMPs.

b. "Marina mooring area" means those mooring areas managed by a private organization (e.g., marinas, yacht clubs, etc.). Marina mooring areas shall be considered as marina facilities and are subject to the provisions of the CRMP governing marina activities.

~~89~~101. "Mooring tackle" means the hardware used to secure a vessel at a mooring.

~~90~~102. "Mosquito control ditching" means the maintenance and construction of ditches in coastal wetlands in order to enhance tidal flushing and thereby reduce and control mosquito breeding sites.

~~91~~103. "Municipal harbor rules, regulations and programs" means all rules, regulations, programs or management functions exercised by a municipality that apply to the use of tidal waters adjacent to a municipality.

~~92~~104. "North American Vertical Datum of 1988" or "NAVD 88" means the vertical control datum of orthometric height established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

~~93~~105. "Ocean dumping" means the 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.

~~94~~106. "Oil" means oil of any kind and in any form including, but not limited to petroleum, fuel, oil refuse, oil mixed with other wastes, crude oils and all other liquid hydro- carbons regardless of specific gravity.

~~95~~107. "One-hundred-year flood level" means the flood elevation relative to NAVD 88 that has a one (1) percent probability of being equaled or exceeded in any given year~~area above mean high water which has a probability of being flooded once in a one-hundred-year period~~. The100-yr flood extent line has been designated by the ~~Department of Housing and Urban Development~~ Federal Emergency Management Agency on Flood Insurance Rate Maps. (Note: definition change to reflect modern terms and change in federal agency assignment.)

~~96~~108. "Onsite wastewater treatment system" or "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 wastewater system.

~~97~~109. "Open marsh water management" or "OMWM" means the maintenance and construction of reservoirs and connectors in order to enhance the tidal food web and thereby reduce and control mosquito breeding sites.

~~98~~110. "Operator" means any person owning or operating an oil carrying tanker vessel with a capacity of more than 5,000 gallons whether by lease, contract, or any other form of agreement. (Note: this definition applies to § 1.3.8 of this Part)

~~99~~111. "Outer continental shelf exploration, development and production activities" means 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 (See 43 U.S.C. § 29).

~~100~~112. "Outhaul" means a recreational boating facility that consists of a non-single-point anchoring device, for the purpose of securing a boat in tidal waters and retrieving it from shore.

~~101~~113. "Person" means any individual, partnership, corporation, association, governmental subdivision, or public or private organization of any character other than an agency.

~~102~~114. "Petroleum hydrocarbons" means a compound originating from oil, gas, or other petroleum base and composed primarily of hydrogen and carbon.

~~103~~115. "Petroleum products" means crude or refined oils, kerosene, gasoline, natural gas, or liquefied natural gas (LNG), liquefied petroleum gas (LPG), synthetic natural gas (methane or SNG), or other petroleum derivatives.

~~104~~116. "Physiographic feature" means a landform or element of the landscape.

~~105~~117. "Plankton" means small, suspended aquatic plants and animals which drift or swim weakly in the water column.

~~106~~118. "Point source discharge" 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.

~~107~~119. "Priority of use" means a reflection of the Council's assessment of those uses deemed most likely to be consistent with adopted Council policies and regulations.

~~108~~120. "Program" means the State of Rhode Island Coastal Resources Management Program.

~~109~~121. "Property line extension" or "PLE" means 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 is used in the application process as a tool to assess dock siting and is not to be construed as conveying any rights or privileges to an applicant or property nor as a determination of riparian rights.

~~110~~122. "Public access to the shore" means 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.

~~111~~123. "Public right-of-way" means a parcel of land over which the public has a right to access tidal waters.

~~112~~124. "Public roadways" means all roadways other than private driveways used to access either public or private roads.

~~113~~125. "Public trust resources" or "PTR" means 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.

~~114~~126. "Recreation" means any voluntary experience engaged primarily during leisure time from which the individual derives satisfaction.

~~115~~127. "Recreational structures" means swim floats, beach pavilions that are constructed for recreational purposes on a shoreline feature, its contiguous area, or in tidal waters.

~~116~~128. "Recreational boating facilities" means marinas, launching ramps, outhauls, residential and limited recreational boating facilities, recreational wharves, piers and slips, floats or floating docks, and ~~recreational~~ mooring areas.

~~117~~129. "Redevelopment" means 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.

~~118~~130. "Residential boating facility" means a dock, pier, wharf, or float, or combination of such facilities, ~~contiguous to~~ that shares a common boundary or directly across the width of a public road with a private residence, developed condominium, developed cooperative or other home owners' association properties that may accommodate up to four (4) boats.

~~119~~131. "Residential building" means houses, and other structures as defined ~~as a building in Section R 115 of the Council of American Building Officials building code, and the pertinent sections thereto~~ in the Rhode Island State Building Code (SBC-2) which are used primarily for human habitation~~, which~~ and are built on a shoreline feature or its contiguous area. (Note: definition modified to reference pertinent RI State building codes rather than national code.)

~~120~~132. "Restoration" means a return to a condition closely resembling a former, original, normal, or unimpaired condition.

~~121~~133. "Revetment" means 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.

134. "Rhode Island State Plane Coordinate System of 1983" or "RISPCS 1983" means a transverse Mercator projection of the North American datum of 1983, which can be used for defining and stating the geographic positions or locations of points on the surface of the earth within the state and defined in R.I. Gen. Laws § 34-8-4. The Rhode Island Coordinate System of 1983 shall be used for all HMPs.

~~122~~135. "Riparian rights" means 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 accretion and reliction.

~~123~~136. "Riprap" means stone or concrete blocks that are dumped or placed and installed without mortar.

~~124~~137. "Rocky shore" means 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.

~~125~~138. "Runoff" means that portion of precipitation which is not absorbed into the ground and which drains naturally or through manmade channels to surface water bodies.

~~126~~139. "Salt marsh" means areas regularly or irregularly 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*), saltwort (*Salicornia* spp.), sea lavender (*Limonium carolinianum*), saltmarsh bulrush (*Scirpus* spp.), high tide bush (*Iva frutescens*). Saltmarsh includes both high saltmarsh and low saltmarsh defined as follows:

a. High salt marsh is defined as that portion of the saltmarsh 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*).

b. Low salt marsh is defined as that portion of the saltmarsh that is flooded daily and the vegetative composition typically consists predominantly of smooth cordgrass (*Spartina alterniflora*).

~~127~~140. "Scarp" means a line of cliffs, bluffs produced by faulting or erosion.

~~128~~141. "Sea level" means the height of the sea with respect to a horizontal control point or benchmark such as 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.

~~129~~142. "Sea Level Affecting Marshes Model" or "SLAMM" means 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.

~~130~~143. "Seawall" means a massive, standalone 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.

~~131~~144. "Sedimentation" means the settling to the bottom of suspended sediments.

145. "Seed" means: Quahogs (Mercenaria mercenaria) with a shell size along the longest axis less than 20mm; Oysters (Crassostrea virginica and Ostrea edulis) with a shell size along the longest axis less than 32mm; and any Blue Mussels (Mytilus edulis) that have settled during the current calendar year.

~~132~~146. "Setback" means the minimum distance from the inland boundary of a coastal feature at which an approved activity or alteration may be permitted.

~~133~~147. "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~~ pursuant to R.I. Gen. Laws § 46-12-1(21). 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, and wastewater and septage, as defined by the DEM OWTS Rules, and discharges of heated waters to tidal waters of the state.

~~134~~148. "Sewage treatment plant" means 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.

149. "Shellfish Stock" means a population of species living within defined limits (e.g., the Narragansett Bay steamer clam stock or the Ninigret Pond wild oyster stock).

~~135~~150. "Shoreline category/type" means one of the seven categories of Rhode Island shorelines designated as part of this program.

~~136~~151. "Significant damage to the environment" means detriment, harm, or destruction of the environment, as opposed to damage of trivial consequence.

~~137~~152. "Significant expansion of a marina" means any expansion greater than 25 % of existing or previously authorized boat capacity, or an expansion of fifty (50) or more vessels.

~~138~~153. "Siltation curtains" means devices placed in the water during a dredging operation or other activity which prevent the spreading of dredged sediments.

154. "Spat" means a molluscan bivalve larva that is in the water column or recently settled.

155. "Spat collection" means the use and placement of submerged apparatus to attract or capture larval shellfish by a CRMC Assent holder.

~~139~~156. "Storm surge" means an elevation in the sea surface from the effects of a storm.

~~140~~157. "Stormwater management plan" means 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 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).

~~141~~158. "Stormwater runoff" means 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.

~~142~~159. "Structural lot coverage" means 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.

~~143~~160. "Structural perimeter limit" or "SPL" means 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.

~~144~~161. "Structural shoreline protection facilities" means 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 § 1.1.9 of this Part and which would extend to a depth below grade to protect land or structures from active or future shoreline erosion.

~~145~~162. "Subdivision" means the division or re-division ~~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.~~ as defined in R.I. Gen. Laws § 45-23-32(52). ~~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.~~ (Note: The last sentence is a standard in § 1.3.3, not part of the definition in R.I. Gen. Laws § 45-23-32(52))

~~146~~163. "Submerged aquatic vegetation" or "SAV" means 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 include eelgrass (*Zostera marina*) and widgeon grass (*Ruppia maritima*), with eelgrass as the dominant SAV in Rhode Island waters.

~~147~~164. "Submerged aquatic vegetation habitat" or "SAV habitat" means 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.

~~148~~165. "Swim float" means 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.

~~149~~166. "Terminal float" means a 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.

~~150~~167. "Transfer" means both on loading and offloading between vessels.

~~151~~168. "Transient berthing" means 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.

~~152~~169. "Tributary" means 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.

~~153~~170. "Tributary wetland" means freshwater wetlands that are connected via a watercourse to a coastal wetland and/or tidal waters.

~~154~~171. "Undue hardship" means an inappropriate, unsuitable, unlawful, or excessive standard or requirement levied upon an applicant.

172. "Upweller" means a mechanical device to increase water flow for shellfish seed intended to accelerate their growth.

~~155~~173. "Vertical datum" means either a fixed benchmark such as NAVD 88 or a site specific tidal datum 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 the official civilian vertical datum for surveying and mapping activities in the United States. Tidal datum, 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.

174. "Vessel" means every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water and shall include barges and tugs. Specifically excluded by this definition are floating homes or houseboats.

~~156~~175. "Water-dependent activity use" means 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 and also includes non-water-dependent activities that provide access to the shore to broad segments of the public.

~~157~~176. "Water quality volume" or "WQv" means 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.

~~158~~177. "Water use category/type" means one of six use designations assigned to Rhode Island coastal waters as part of this program.

~~159~~178. "Wetland restoration" means 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.

~~160~~179. "Wetland walkover structure" means a raised pile-supported facility which provides passage over a wetland for purposes of providing pedestrian access between areas of upland isolated by the presence of wetland.

~~161~~180. "Widgeon grass" or "*Ruppia maritima*" means 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.

181. "Wild Stock" means existing natural resources, including aquatic (freshwater and marine) animals or plants, which grow within the waters of the state.

1.1.3 ~~[Reserved]~~Requirements for Applicants

(Note: this introductory section was part of the existing federally approved Red Book and is now inserted for codification as part of the RICR process.)

A. Step one - Is a Council assent required?

1. 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.

2. 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 (6) units or more], or facilities requiring or creating 40,000 sq. ft. or more of parking.

3. 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).

4. 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:

a. power generating over forty (40) megawatts

b. chemical or petroleum processing, transfer or storage;

c. minerals extraction;

d. sewage treatment and disposal and solid waste disposal facilities; and

e. desalination plants

5. 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 wetlands 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.

B. Step two - Where Is the activity or alteration being proposed?

1. 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 be set back a distance equivalent to 30 times the annual erosion rate (see § 1.1.9 of this Part). The prerequisites, standards, and Category B requirements for on land activities listed in §§ 1.3.1(A) through 1.3.1(R) and in §§ 1.3.5 and 1.3.6 of this Part apply to both shoreline features and their 200 foot contiguous area.

2. 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 § 1.1.2 of this Part will further assist you in identifying what shoreline features are present.

3. 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 § 1.3.3 of this Part, determine if it is located within a critical coastal area. If the proposed alteration or activity is listed in § 1.3.4 of this Part, then you will need to apply for a Council Assent.

4. 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.

C. Step three - What regulations apply?

1. 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.

2. If the alteration proposed is for tidal waters or for a shoreline feature, turn to Table 1 in § 1.1.5 of this Part 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 2 in § 1.1.5 of this Part lists the review categories for activities proposed in the 200 foot area contiguous to shoreline features.

3. If the proposed alteration is within a critical coastal area, consult the appropriate CRMC Special Area Management Plan for supplemental policies, standards, and requirements. Table 3 in § 1.1.5 of this Part lists the review categories for inland activities subject to the requirements of § 1.3.3 or § 1.3.4 of this Part.

4. 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 CRMC Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast shall apply.

D. Category A applications

1. Review the policies in § 1.2 of this Part 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 by undertaken.

2. Turn to the appropriate section in § 1.3 of this Part 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 (§ 1.1.7), if applicable.

3. File your application. If the activity you propose is not starred (*) on Table 1 in § 1.1.5 of this Part 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 (see § 1.1.6(H) of this Part) 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 § 1.1.6(H) of this Part) 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.

E. Category B applications

1. Complete steps 1 and 2 above (§§ 1.1.3(A) and 1.1.3(B) of this Part) as for a Category A Assent.

2. Prepare in writing an environmental assessment of your proposal. This must address all items listed in § 1.3.1(A) of this Part and any additional requirements for Category B applications listed for the activity in question in the appropriate sections of § 1.3 of this Part. 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 thirty (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 thirty (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.

1.1.4 Alterations and Activities That Require an Assent from the Coastal Resources Management Council (formerly § 100)

A. Tidal waters, shoreline features, and contiguous Areas (formerly § 100.1)

1. A Council Assent is required for any alteration or activity that are proposed for:

   a. 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);

   b. shoreline features; and

   c. areas contiguous to shoreline features.

      (1) 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 Tables 1, 2 and 3 of § 1.1.5 of this Part. Any alteration or activities as defined in § 1.1.5 of this Part 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.

2. Council Assents are also required for any other activity or alteration not listed in Tables 1, 2 and 3 of § 1.1.5 of this Part, but which has a reasonable probability of conflicting with the Council's goals and its management plans or programs, and/or has the potential to damage the environment of the coastal region.

3. 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 § 1.2 of this Part. High resolution, ~~L~~large scale maps showing the use categories are available on the CRMC website at: http://www.crmc.ri.gov/maps/maps_wateruse.html for each coastal community~~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 of § 1.1.5(D) of this Part. The land-ward boundary of the territorial sea is the mean high water mark along the Rhode Island coast.

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

   a. Coastal beaches and dunes;

   b. Barrier beaches;

   c. Coastal wetlands;

   d. Coastal cliffs, bluffs, and banks;

   e. Rocky shores; ~~and,~~

   f. Manmade shorelines~~.~~; and

   g. Dunes (Note: Dunes were added as a coastal feature in 1990)

5. The prerequisites, standards, and Category B requirements for on land activities listed in §§ 1.3.1(A) through 1.3.1(R) and in §§ 1.3.5 and 1.3.6 of this Part apply to shoreline features, their 200-foot contiguous area, and inland activities subject to §§ 1.3.3 and 1.3.4 of this Part.

B. Inland of shoreline features and contiguous areas (formerly § 100.2)

1. The Council reserves the right to review the following categories of alterations and activities proposed inland of shoreline features and their contiguous areas pursuant to R.I. Gen. Laws § 46-23-6: (Note: the following changes are for consistency with existing state law)

   a. Power generating plants ~~(excluding facilities of less than a~~over 40~~-~~megawatts capacity~~)~~;

   b. Chemical or petroleum processing, transfer, or storage~~Petroleum storage~~ facilities (excluding those of less than a 2,400-barrel capacity);

c. ~~Chemical or petroleum processing~~Freshwater wetlands in the vicinity of the coast;

d. Minerals extraction;

e. Sewage treatment and disposal facilities (excluding ~~individual~~ onsite ~~sewage disposal~~wastewater treatment systems);

f. Solid waste disposal facilities; and,

g. Desalination plants.

2. 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 § 1.3.3 of this Part.

C. Critical coastal areas (formerly § 100.3)

1. Watersheds of poorly flushed estuaries: 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 the Salt Pond Region and Narrow River Special Area Management Plans (SAMP) (as delineated ~~by the poorly flushed estuary boundary on the attached RICRMP maps, and~~ on the maps accompanying each SAMP ~~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).

f. All roadway construction and upgrading projects; and

g. Development affecting freshwater wetlands in the vicinity of the coast. (Note: added text for consistency with listed watershed activities in the Salt Pond Region and Narrow River SAMPs.)

2. 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.

D. Freshwater wetlands in the vicinity of the coast (formerly § 100.4)

1. Applicability

a. 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.

b. 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.

c. 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.

d. 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.

~~2. Findings~~

a. 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:

(1) 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.

(2) 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.~~

~~(3) 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.~~

~~(4) 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.~~

~~(5) 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.~~

~~b. 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~~

2. Policies

a. 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 and verification by CRMC staff.

b. The Council's Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast, are incorporated herein and the following constitute the functions and values of freshwater wetlands, area(s) of land within fifty (50) feet, riverbanks, and flood plains: (Note: This text is from findings above, but represent important policy considerations.)

(1) 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.

(2) 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.

(3) 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.

(4) 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.

(5) 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.

c. The functions and values of freshwater wetlands in the vicinity of the coast further the goals and objectives of the Council's management programs for the protection and management of coastal resources.

3. Prerequisites

a. A water quality certificate from the Department of Environmental Management shall be a prerequisite for any application to alter freshwater wetlands pursuant to ~~section 9.05 of the aforementioned rules and regulations~~ the Council's Rules and Regulations for the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast.

4. Prohibitions

a. Filling, removing, or grading (§ 1.3.1(B) of this Part) 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:

(1) The fifty (50) foot wetland perimeter and river bank wetland areas outside the wetland "edge" (RIFWWA, R.I. Gen. Laws §§ 2-1-20(d) and (g)) shall not be considered part of the wetland under this section.

(2) Filling, removing, or grading of freshwater wetlands, excluding areas regulated as coastal wetlands (§ 1.2.2(C) of this Part) 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 § 1.1.7 of this Part. 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~~ OWTS 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:

(AA) The applicant shall be required to mitigate the area of wetland lost on a 2 to 1 (2:1) area basis;

(BB) The wetland that is replaced shall be consistent with that which was filled;

(CC) The mitigation, when feasible, shall take place on-site and in an area which is hydrologically connected to

Energy-related Activities/Structures	P	P	P	P3	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

Activity Matrix **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	A1	A1	P	P	P	A1	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	P6	P	P	P	P	P	P	P	P	P
Launching Ramps*	P/B 11	P	P	P	P	P	P	P	B9	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	P2	B	P	P	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	P	B
Point Discharges - Ru noff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Ot her	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	B6	B	P	P	P	P	B	B	B	B

Energy-related Activities/Structures	B	P	P	P3	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	P6	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

Activity Matrix **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	A1	A1	P	P	B	A1	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	P2	B	P	P	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	B	B
Point Discharges - Ru noff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Ot her	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	P3	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

Activity Matrix **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	A1	A1	P	B	B	A1	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	P2	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	P	P	A	B
Point Discharges - Ru noff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Ot her	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	P3	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

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	P2	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	B	B	A	B
Point Discharges - Ru noff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Ot her	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	P3	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

Activity Matrix **Type 6 Waters** 10	**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	A1	A1	P	B	B	A1	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	P2	B	P	B	B	B	B
Individual Sewage Disposal Systems	P	P	P	P	A	P	B	B	A	B
Point Discharges - Ru noff	A	A	A	A	A	A	A	A	A	A
Point Discharges - Ot her	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

Filling, removal, and grading of shoreline features	A/B1
Residential buildings	A2
Commercial and industrial structures	A/B3
Recreational structures	A/B3
Municipal sewage treatment facilities	A/B3
Onsite wastewater treatment systems (OWTS)	A
Point discharges - runoff	A
Point discharges - other	B
Structural shoreline protection	B
Non-structural shoreline protection	A
Upland dredged material disposal	A/B3
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 for Table 2 1 - See § 1.3.1(B) of this Part for differentiation between Category A and B reviews.	

2 - See § 1.3.3 of this Part.

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 § 1.1.5(E) of this Part 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 to 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 § 1.3.1(I) of this Part.

C. Table 3: Review Categories for Inland Activities (§§ 1.3.3 and 1.3.4 of this Part)

Alteration or activity	**Review category**
Statewide	
Power generating plants (excluding facilities of less than 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 OWTS)	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/B1
40,000 square feet of impervious surface	A/B2
Critical coastal areas	
Subdivision, co-operative, or other multi-ownership facility	A/B1
40,000 square feet of impervious surface	A/B2
Onsite wastewater treatment system serving more than 2,000 gallons per day	A/B2
Extension of municipal or industrial treatment facilities or sewer lines	B3
Water distribution systems or the extension of supply lines	A/B2

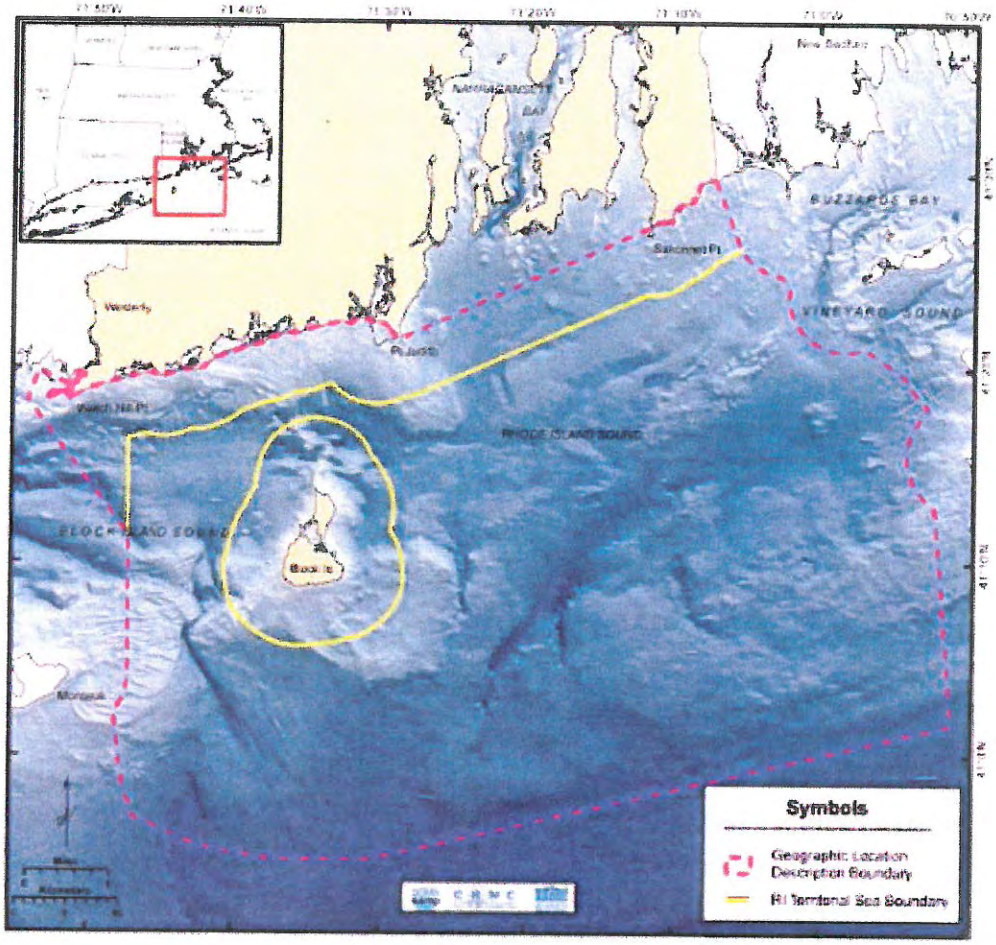
Footnotes for Table 1B

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

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

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

D. Figure 1: Rhode Island's territorial sea and geographic location description (GLD) boundary


BUZZARDS BAY
VINEYARD SOUND
RHODE ISLAND SOUND
Symbols
Geographic Location Description Boundary
RI Territorial Sea Boundary

1

1.1.6 Applications for Category A and Category B Council Assents (formerly § 110)

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 § 1.1.6(C) of this Part, 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 §1.1.6(C) of this Part (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.

C. 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.

D. Applications eligible for administrative review include the following.

1. Subdivisions of twenty (20) units or less;

2. Residential docks less than 200 feet (MLW) in length in the Sakonnet River or the open waters of Narragansett Bay;

3. Residential docks up to 75 feet (MLW) in length as are permissible in CRMC water types set forth in the CRMP;

4. Terminal floats less than 200 square feet;

5. Aquaculture sites of up to three (3) acres in the salt ponds or upper Narragansett Bay; less than 10 acres elsewhere;

6. Structural shoreline protection facilities of less than 300 linear feet;

7. Dredging, and dredge material disposal at pre-approved locations of less than 100,000 cubic yards for marinas or state navigation projects;

8. Beach nourishment projects of less than 100,000 cubic yards;

9. Wetland mitigation that is habitat restoration when an applicant is a federal, state, or municipal entity;

10. Harbor management plans that are recommended for approval;

11. Boat and float lifts;

12. Habitat restoration projects undertaken by public entities or in partnership with public entities; and

13. RIDOT road and bridge projects that do not require variances or special exceptions.

E. Category A applications. (formerly § 110.1)

1. The activities and alterations listed as "A" in Table 1 (shoreline features and tidal waters), Table 2 (the 200 foot area contiguous to shoreline features) or Table 3 (inland activities) in § 1.1.5 of this Part include routine matters and categories of construction and maintenance work that do not require review by the full Council if the criteria in §§ 1.1.6(E)(1)(a) through (d) below are all met.

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

   b. All buffer zone and setback requirements as contained in §§ 1.1.9 and 1.1.11 of this Part and/or as contained in applicable special area management plans are met.

   c. 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 in § 1.1.5 of this Part are put out to notice). It should be noted that all notice procedures are subject to the provisions of R.I. Gen. Laws Chapter 42-35, the Administrative Procedures Act (APA).

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

2. 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.

3. If the criteria listed in § 1.1.6(E)(1) of this Part 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.

4. Applicants desiring relief from one or more standards may apply for a variance (see § 1.1.7 of this Part).

F. Category B applications (formerly § 110.2)

1. Applicants for activities and alterations listed as "B" in Tables 1, 2, or 3 in § 1.1.5 of this Part, 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.

2. 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.

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

G. Substantive objections (formerly § 110.3)

1. Substantive objections are defined by one or more of the following:

a. threat of direct loss of property of the objector(s) at the site in question;

b. 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;

c. 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:

(1) circulation and/or flushing patterns;

(2) sediment deposition and erosion;

(3) biological communities, including vegetation, shellfish and finfish resources, and wildlife habitat;

(4) areas of historic and archaeological significance;

(5) scenic and/or recreation values;

(6) water quality;

(7) public access to and along the shore;

(8) shoreline erosion and flood hazards; or

(9) evidence that the proposed activity or alteration does not conform to state or duly adopted municipal development plans, ordinances, or regulations.

H. Findings of no significant impact (formerly § 110.4)

1. 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.

2. 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 or Deputy 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 or Deputy Director informing him/her 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.

I. Coastal hazard analysis application requirements

1. The following new projects when subject to the jurisdiction of the CRMC must file a coastal hazard analysis with their CRMC application using the "CRMC Coastal Hazard Application Guidance" provided in Chapter 5 of the CRMC Shoreline Change Special Area Management Plan (Beach SAMP):

a. construction of new residential buildings as defined in § 1.1.2 of this Part;

b. construction of new commercial and industrial structures as defined in § 1.1.2 of this Part;

c. construction of new beach pavilions as defined in § 1.1.2 of this Part;

d. construction of any new private or public roadway, regardless of length;

e. construction of any new infrastructure project subject to §§ 1.3.1(F), (H), and (M); and

f. construction of any new subdivisions with six (6) or more lots, any portion of which is within 200 feet of a shoreline feature.

2. The following modifications to existing projects subject to the jurisdiction of the CRMC must file a coastal hazard analysis with their CRMC application using the "CRMC Coastal Hazard Application Guidance" provided in Chapter 5 of the CRMC Shoreline Change Special Area Management Plan (Beach SAMP):

a. any expansion of existing commercial structures over tidal waters;

b. any expansion greater than 600 square feet to existing residential, commercial, industrial or beach pavilion structures;

c. second story additions greater than 600 square feet to any existing residential, commercial, industrial or beach pavilion structures; and

d. any modification to existing residential, commercial, industrial or beach pavilion structures when such structures are located within the CRMC minimum setback specified by § 1.1.9 of this Part.

3. All projects meeting the analysis thresholds established in §§ 1.1.6(I)(1) and (2) of this Part above shall complete the CRMC coastal hazard application worksheet (provide hyperlink) and provide the following information as part of the application:

a. identify the project design life (20, 30 50 years, etc.), which is the period of time during which a structure is expected by its designers to be functional within its specified parameters; in other words, the life expectancy of the structure before failure. This period of time is used to establish the appropriate sea level rise (SLR) scenario for analysis;

b. using Table 1 in Chapter 5 of the Beach SAMP that is based upon the NOAA sea level rise high curve as adopted by the CRMC in § 1.1.10 of this Part determine the SLR projection at the end of the project design life; and

c. assess the exposure and potential risk from coastal hazards at the project site based upon:

(1) sea level rise;

(2) shoreline erosion;

(3) base flood elevation (BFE) from FEMA flood insurance rate map; and

(4) STORMTOOLS design elevation.

4. All projects meeting the analysis thresholds established in §§ 1.1.6(I)(1) and (2) of this Part above shall provide site plans of the proposed project with the following overlays:

a. Sea level rise analysis showing the corresponding proposed project design life SLR scenario (maximum of 9.61 feet for NOAA high curve by 2100). Applicants should consider evaluating the coastal hazards risk associated with frequent storm events (1, 3 or 5-year storms) combined with minimal sea level rise of 1-2 feet to account for extreme high tide events which can occur any year during the expected project design life;

b. 100-yr return storm event and the 100-yr storm event with the corresponding design life SLR scenario;

c. projected erosion rate for structure design life at the project site using the appropriate CRMC shoreline change map; and

d. Sea Level Affecting Marshes Model (SLAMM) for 1, 3 and 5 feet SLR scenarios for large projects and subdivisions only.

5. All projects meeting the analysis thresholds established in §§ 1.1.6(I)(1) and (2) of this Part above shall describe the proposed coastal adaptation techniques incorporated into the project design to overcome or accommodate any coastal hazard exposure risks resulting from the analyses required by § 1.1.6(I) of this Part.

1.1.7 Variances (formerly § 120)

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 § 1.1.7(B) of this Part 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 variance for a setback were acquired from the local municipality, the applicant must first exhaust his remedies before the local municipality.

1.1.8 Special Exceptions (formerly § 130)

A. Special exceptions may be granted to prohibited activities to permit alterations and activities that do not conform to 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 § 1.2.2(C)(4)(i) of this Part;

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 R.I. Gen. Laws Chapter 42-35, the 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.

1.1.9 Setbacks (formerly § 140)

A. 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 (see §1.3.1(B) of this Part);

2. Residential buildings and garages excluding associated structures (see § 1.1.6(H) of this Part);

3. New individual sewage disposal systems, sewage treatment plants, and associated sewer facilities excluding outfalls (See § 1.3.1(F) of this Part). 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 (See § 1.3.1(C) of this Part); and

5. Transportation facilities that are not water dependent (see § 1.3.1(M) of this Part).

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. Where the applicant demolishes a structure, any contemporary or subsequent application to rebuild shall meet applicable setback requirements. (Note: this is existing text from § 1.1.11)

~~D~~E. Applicants for alterations and activities who cannot meet the minimum setback standards may apply to the Council for a variance (see § 1.1.7 of this Part).

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

1.1.10 Climate Change and Sea Level Rise (formerly § 145)

~~A. Findings.~~(Findings moved to new CRMP guidance document.)

~~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). The present rate of global sea level rise is 3.3 mm/yr as measured by satellite altimetry. See: http://sealevel.colorado.edu/.~~

~~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, which indicates a rate of 10.8 inches (27.4 cm) of relative sea level rise per century or 2.74 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.

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 Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2013) projects 11 to 39 in (28 to 98 cm) of eustatic sea level rise in the coming century. Sea levels are rising faster now than in the previous two millennia, and the rise is projected to accelerate – regardless of the emissions scenario, even with strong climate mitigation (IPCC, 2013). These estimates include limited contributions of ice flow dynamics and do not include 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. Gen. Laws § 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. Gen. Laws §§ 23-27.3 through 100.1.5.5.~~

~~28. The U.S. Army Corps of Engineers (USACE) released a revised circular dated December 31, 2013 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://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1100-2-8162.pdf. In addition, the USACE in collaboration with the National Oceanic and Atmospheric Administration (NOAA) have released a sea level rise calculator available online at: http://corpsclimate.us/ccaceslcurves.cfm. The two NOAA tide gauges applicable to Rhode Island when using the sea level rise calculator are located in Providence and Newport.

29. NOAA has very high confidence that global mean sea level will rise at least 0.2m (8 inches) and no more than 2.0m (6.6 feet) by 2100 (Parris *et al.*, 2012).

30. 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:

a. 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.

b. 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.

c. 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

A. 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. 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, the Council will regularly review new scientific evidence regarding sea level change.

4. The Council relies upon the most recent NOAA sea level rise data to address both short- and long-term planning horizons and the design life considerations for public and private infrastructure. The Council's policy is to adopt and use the most recent sea level change scenarios published by NOAA ~~in~~ (currently Technical Report ~~OAR CPO-1~~NOS CO-OPS 083 (~~Parris et al., 2012~~), and the NOAA sea level rise change curves for Newport and Providence as provided in the U.S. Army Corps of Engineers online sea level rise calculator tool available at: http://corpsclimate.us/ccaceslcurves.cfm. ~~As of 2015 the range in sea level rise change is projected by NOAA to be a maximum of approximately 1.0 foot in 2035, 2.0 feet in 2050 and 7.0 feet in 2100.~~ The Council requires the use of the NOAA High scenario curve for projecting sea level rise for future conditions. In addition, the Council adopts and recommends use of the STORMTOOLS online mapping tool developed on behalf of the CRMC by the University of Rhode Island Ocean Engineering program to evaluate the flood extent and inundation from sea level rise and storm surge.

1.1.11 Coastal Buffer Zones (formerly § 150)

~~A. Findings~~ (Findings moved to new CRMP guidance document.)

~~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 1950's 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).

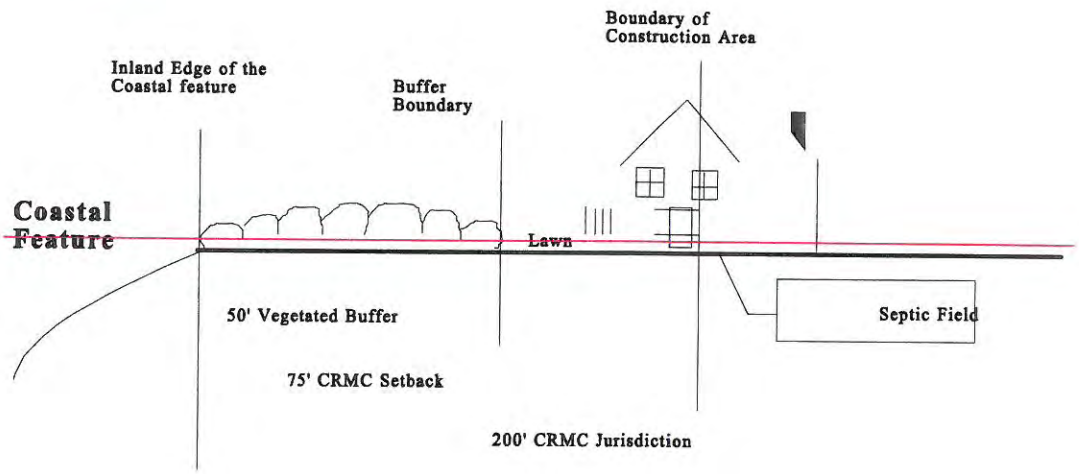
3. Coastal buffer zones provide multiple uses and multiple benefits to those areas where they are applied (Desbonnet *et al.*, 1993). The multiple uses and benefits of Coastal Buffer Zones include:

   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. 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

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



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 (See § 1.3.5 of this Part). 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.~~

A. Prerequisites

1. All applications for which § 1.1.11 of this Part 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.

B. Policies

1. 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: (Moved from Findings above as these are important policy considerations.)

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. 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 (See § 1.3.5 of this Part). 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.

2. 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.

3. 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 §§ 1.3.1(H) and 1.3.1(M) of this Part; and

d inland activities identified in § 1.3.3 of this Part. 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.

4. 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.

5. 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.

6. 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.

7. 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 4 of this Part and ensuring that the appropriate buffer zone is established.

a. Table 4: Coastal buffer zone designations for residential development

Residential lot size (square feet)	**Required buffer (feet)**	
	CRMC water type 3, 4, 5, & 6	**CRMC water 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

C. 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 4 in § 1.1.11(C)(6)(a) of this Part. 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 § 1.1.7 of this Part. 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. § 1.3.1(C) of this Part).

   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 § 1.1.11(C)(6)(a) of this Part (Table 4).

   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 § 1.1.11(C)(7)(a) of this Part (Table 4).

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.

f. 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 § 1.1.7 of this Part.

4. Coastal buffer zone requirements for all commercial and industrial development and activities subject to the requirements of §§ 1.3.1(H), (M) or 1.3.3 of this Part shall be determined on a case-by-case basis by the Council. § 1.1.11(C)(6)(a) of this Part (Table 4) 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 § 1.1.11(C)(6)(a) of this Part (Table 4).

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 § 1.1.7 of this Part.

6. All property abutting coastal natural areas listed in § 1.2.2(E)(3) of this Part 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 § 1.1.7 of this Part.

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 required by § 1.1.9 of this Part 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 § 1.1.7 of this Part. 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.

D. 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 gullying 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, but shall not exceed more than 25% of the length as measured along the shoreline and no more than 25% of the total buffer zone area. 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.

f. All proposals for coastal buffer zone management should involve minor alterations which do not depreciate the values and functions of coastal buffer zones as specified in § 1.1.11 of this Part. No more than 25% of the total buffer zone area shall be affected by the management options provided in section B of the CRMC "CRMC Coastal Buffer Zone Management Guidance." Areas to remain unaltered shall be clearly identified on the proposed plans. Furthermore, when invasive species management is also being conducted, the buffer zone area managed under section B must be

included within the total area allowed for management in section D of the "CRMC Coastal Buffer Zone Management Guidance."

E. Prohibitions

1. Establishment or maintenance of shoreline access pathways is prohibited on coastal wetlands and where inappropriate on coastal features as determined by the CRMC.

1.1.12 Fees (formerly § 160)

A. R. I. Gen. Laws § 46-23-6(4)(iii) authorizes 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.

C. 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.

D. 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.

E. 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 lease 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.

F. 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.

1.1.13 Violations and Enforcement Actions (formerly § 170)

A. R.I. Gen. Laws Chapter 46-23 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 § 1.1.13(A) of this Part, 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.

1.1.14 Emergency Assents (formerly § 180)

A. Catastrophic Storms Assent

1. 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:

a. Immediate threat to public health and safety; and

b. Immediate and significant adverse environmental impacts.

2. These Emergency Assents may permit only such action at the site that will correct conditions in §§ 1.1.14(A)(1)(a) and (b) of this Part in a manner consistent with the policies of the Program.

B. Imminent Peril Assent

1. 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:

a. Bodily harm or a threat to public health;

b. Significant adverse environmental impacts; or

c. Significant economic loss to the State.

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

C. Post Hurricane and Storm Permitting Procedures

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

a. A hurricane, severe storm or other disaster has caused severe and widespread damage in portions of CRMC jurisdiction; and

b. The Governor has submitted a formal request to the President to declare areas within CRMC jurisdiction a major disaster area; and

c. 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

d. The CRMC shall provide adequate public notice of its decisions to impose emergency procedures.

2. 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.

3. 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:

   a. Applications for new alterations and activities requiring Council Assent, which do not result from the disaster.

   b. Reconstruction of all residential and associated residential structures, commercial and recreational structures in both A zone and V zone that were destroyed 50% or more by storm induced flood, wave and wind damage.

4. 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.

5. 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 re-permitting according to best available options for hurricane mitigation.

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

   a. 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;

   b. Applicants for repair or reconstruction in A, B, or C flood zones, as delineated on the FEMA maps, may follow the procedures in § 1.3.1(N) of this Part (Maintenance);

   c. Final priority will be given to any application for new alterations and activities unrelated to the disaster; and

d. 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 overriding 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.

1.2 Areas Under Council Jurisdiction

1.2.1 Tidal and Coastal Pond Waters (formerly § 200)

~~A. Findings~~ (Findings moved to new CRMP guidance document)

A. ~~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 coexist, 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 (§ 1.2.2 of this Part), 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.~~

B. Type 1 Conservation Areas (formerly § 200.1)

1. Included in this category are one or more of the following:

a. water areas that are within or adjacent to the boundaries of designated wildlife refuges and conservation areas;

b. water areas that have retained natural habitat or maintain scenic values of unique or unusual significance; and

c. water areas that are particularly unsuitable for structures due to their exposure to severe wave action, flooding, and erosion.

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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.~~

~~c. 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.~~

~~d. 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.~~

~~e. 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.~~

2. Policies

a. 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.

b. 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 § 1.3.1(F) of this Part), and the placement of industrial or commercial structures or operations (excluding fishing and aquaculture) are all prohibited in Type 1 waters.

c. 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.

d. 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 preexisted 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, and in order to provide for the equitable transition and compliance with the Council's goals, preexisting residential boating facilities may be permitted under the limited terms and conditions set forth in § 1.3.1(D) of this Part ~~and in the Council's Pre-existing Residential Boating Facilities Program~~.

e. 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.

f. 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 § 1.3.5 of this Part).

g. 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.

C. Type 2 Low Intensity Use (formerly § 200.2)

1. 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.

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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 1950's 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.~~

~~c. 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 shore lands 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.~~

~~d. 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.~~

2. Policies

a. 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.

b. 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 preexisting 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 preexisting 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 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 at preexisting 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 and will be reviewed in accordance with applicable standards of § 1.3.1(D) of this Part. 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 preexisting 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 preexisting marinas to meet their capacities as of January 1981.

c. 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 effect on Rhode Island's coastal resources and therefore is grounds for denial or modification of an application for an Assent:

(1) 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.);

(2) Access to the construction site is not available without causing significant impacts to Rhode Island's coastal resources (e.g. coastal wetlands);

(3) 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

(4) Water depths adjacent to the site would require dock span lengths in excess of the standards contained in § 1.3.1(D) of this Part in order to allow normal and appropriate use of the dock by a vessel.

d. 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 § 1.3.5 of this Part).

e. 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:

(1) Winnapaug Pond

(2) Quonochontaug Pond

(3) Ninigret Pond (Charlestown Pond)

(4) Green Hill Pond

(5) Potters Pond

(6) Point Judith Pond

(7) Nannaquaket Pond

(8) Palmer River

(9) Kickemuit River

(10) Fishing Cove (Wickford)

(11) Pettaquamscutt River

f. 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.

D. Type 3 High Intensity Boating (formerly § 200.3)

1. 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.

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. Marinas are the principal means by which the boating public gains access to tidal waters, and therefore provide an important public service. Only beach going 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.~~

~~b. 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.~~

2. 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 environ-mental 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.

~~d. 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.~~

e. ~~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.~~

3. 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.

4. Policies

a. 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.

b. The highest priority uses of Type 3 waters and adjoining land areas within the Council jurisdiction are:

(1) marinas, mooring areas, public launching ramps, and other facilities that support recreational boating and enhance public access to tidal waters; and

(2) boatyards and other businesses that service recreational boaters.

c. 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 § 1.3.1(D) of this Part).

d. 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.

E. Type 4 Multipurpose Waters (formerly § 200.4)

1. This category includes:

a. 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

b. open waters adjacent to shorelines that could support water dependent commercial, industrial, and/or high intensity recreational activities.

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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 1930's and ended in 1957. In the late 1970's, 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 reestablishment 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 form buoys or may conduct their activities on the bottom. Most aquaculture 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.~~

~~c. 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.~~

~~d. 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.~~

2. Polices

a. 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.

b. 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.

c. Aquaculture leases shall be considered if the Council is satisfied there will be no significant adverse impacts on the traditional fishery.

d. 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.

F. Type 5 commercial and recreational harbors (formerly § 200.5)

1. 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:

a. Newport Harbor

b. Bristol Harbor

c. Warren waterfront

d. Wickford Harbor

e. Old Harbor, Block Island

f. East Greenwich Harbor

g. Watch Hill Harbor

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

2. Policies

a. 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.

b. The highest priority uses of Type 5 waters and adjoining land areas within Council jurisdiction are:

(1) berthing, mooring, and servicing of recreational craft, commercial fishing vessels, and ferries;

(2) water dependent and water enhanced commerce, including businesses catering to tourists;

(3) maintenance of navigational channels and berths, and removal of obstructions to navigation; and

(4) activities that maintain or enhance water quality and scenic qualities, including the preservation of historic features.

(AA) The Council shall suitably modify or prohibit activities that significantly detract from or interfere with these priority uses.

c. 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 § 1.3.5 of this Part).

G. Type 6 industrial waterfronts and commercial navigation channels (formerly § 200.6)

1. 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:

a. Port of Providence

b. Tiverton shipping area

c. Quonset Point and Davisville

d. Coddington Cove

e. Melville

f. Galilee and Jerusalem

g. Westerly waterfront

~~2. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.

b. In the 1970's 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.

c. 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.

d. 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.~~

2. Policies

a. 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.

b. Highest priority uses of Type 6 waters and adjacent lands under Council jurisdiction are:

(1) berthing, loading and unloading, and servicing of commercial vessels;

(2) construction and maintenance of port facilities, navigation channels, and berths; and

(3) construction and maintenance of facilities required for the support of commercial shipping and fishing activities.

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

c. 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.

d. 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.

1.2.2 Shoreline Features (formerly § 210)

~~A. Introductory Findings~~ (Findings moved to new CRMP guidance document)

~~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 1980's 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 under built 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~~

A. Coastal Beaches (formerly § 210.1)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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 then 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.~~

~~b. 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~~

1. Policies

a. The Council's goals are:

(1) to preserve the qualities of, and public access to those beaches which are an important recreational resource (adjacent to Type 1 and 2 waters);

(2) to prevent activities that will significantly disrupt longshore and/or onshore offshore beach processes, thereby creating an erosion or flooding hazard; and,

(3) to prevent construction in high hazard areas; and

(4) to protect the scenic and ecologic value of beaches.

b. 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.

c. Alterations to beaches adjacent to Type 3, 4, 5, and 6 waters may be permitted if:

(1) the alteration is undertaken to accommodate a designated priority use for the abutting water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable;

(3) only the minimum alteration necessary to support the designated priority use is made;

(4) there is no change in the usage of the property;

(5) there is no change in the footprint of existing structures; and

(6) the construction will meet all current and applicable policies, standards, and requirements of the RICRMP.

d. 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:

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

(2) 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 of §§ 1.2.1(B)(2)(d)(3) through (12) of this Part. In the event these requirements and conditions are not met, the use permit shall be subject to revocation by the Council or its agents.

(3) Vehicles shall have all documentation and registration necessary for operation on the public highways of this state.

(4) All permit applicants shall exhibit proof of current liability insurance coverage.

(5) All persons operating said vehicles shall have valid operator licenses.

(6) Maximum speed on all beaches shall not exceed 10 mph. Maximum speed on beaches shall not exceed 5 mph when approaching pedestrians.

(7) Ruts or holes caused by vehicles shall be filled and debris removed.

(8) Headlights shall be used by all vehicles while in motion between sunset and sunrise.

(9) Riding on or driving from any position outside the vehicles is prohibited.

(10) Vehicles are prohibited on swimming beaches during the period they are protected by lifeguards and in operation.

(11) Vehicles shall be at all times subject to town ordinances and all regulations restricting the use of private, state and federal properties.

(12) 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 though signage and/or roped-off to promote dune restoration, invasive species control and dune or beach re-vegetation efforts.

(13) 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 listed in §§ 1.2.1(B)(2)(d)(14) through (23) of this Part:

(14) shovel (heavy duty or military entrenching tool);

(15) tow rope or chain (15 feet, load strength of 1,800 lbs., chain size 5/16");

(16) jack and support stand (minimum 18" x 18" x 5/8", plywood);

(17) street legal tires (4 ply tread, 2 ply sidewalls) snow or mud tires are not recommended;

(18) spare tire;

(19) low pressure tire gauge (0 20 lbs.);

(20) first aid kit;

(21) fire extinguisher;

(22) appropriate emergency signal devices and/or two way radio; and

(23) flashlight.

2. Prohibitions

a. The construction of new structures other than access ways, walkover structures, and beach facilities, are prohibited in setback areas.

b. 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.

c. 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.

B. Barrier Islands and Spits (formerly § 210.2)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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 these 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.~~

~~c. 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.~~

~~d. 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.~~

~~e. 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.~~

~~f. 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.~~

1. Policies

a. On barriers classified as undeveloped in Table 5 in § 1.2.2(B)(3) of this Part, 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.

b. On barriers classified as developed in Table 5 in § 1.2.2(B)(3) of this Part, 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.

c. On Barriers classified as Moderately developed in Table 5 in § 1.2.2(B)(3) of this Part, the following policies shall apply:

(1) 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 § 1.2.2(B)(1)(c) of this Part;

(2) Existing roads, bridges, utilities and shoreline protection facilities may be maintained only, in accordance with the requirements of § 1.3.1(N) of this Part;

(3) Existing recreational structures may be altered, rehabilitated, expanded or developed according to the following standards:

(4) 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~~ FEMA Flood Insurance Rate Maps, or as established by the Federal Emergency Management Agency;

(5) 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;

(6) 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;

(7) The activity shall meet or exceed all relevant standards for the appropriate flood zone designation; and

(8) 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.

d. 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.

e. 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 herein, 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.

f. 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 § 1.2.2(B) of this Part, flood hazard areas in § 1.3.1(C) of this Part, 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.

g. 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.

h. Persons utilizing undeveloped beaches are required to observe the following rules:

(1) 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.

(2) 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 § 1.2.2(B) of this Part.

(3) Persons shall be at all times subject to applicable town ordinances and regulations restricting the use of private, state, or federal properties.

i. 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:

(1) applicable policies and standards of the RICRMP are met; and,

(2) public access to the shore is enhanced.

(3) Where possible, the reconstruction of these structures shall be behind the foredune zone as defined in §1.2.2(B) of this Part. 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).

j. All policies contained in § 1.2.2(B) of this Part regarding beach vehicle use on coastal beaches shall apply to beach vehicle use on barrier islands and spits.

k. 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.

2. Prohibitions

a. 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.

b. Vehicle access across a back barrier flat to access the salt ponds is prohibited. Access to the ponds shall be on foot only.

c. Vehicles are prohibited in vegetated areas anywhere on the barriers.

d. 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.

e. 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.

f. 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 § 1.2.2(D) of this Part. 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.

g. 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.

h. 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 onsite wastewater treatment systems shall be constructed within the 50 foot setback area. Walkover structures may be permitted over the dunes in order to gain access to the beach.

i. 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.

3. Table 5: Undeveloped, Moderately Developed, and Developed Barriers

Undeveloped Barriers

Sandy Point Island, Westerly, 1

Napatree Beach, Westerly, 1 (west of Watch Hill Beach Club)

Maschaug Beach, Westerly, 1

Quonochontaug Beach, Westerly/Charlestown, 1 (west of Breachway), 1

East Pond Beach, Charlestown

East Beach (Ninigret conservation area to Charlestown Breachway), 1

Green Hill Beach, South Kingstown, 1 (central portion)

Moonstone Beach, South Kingstown

Browning Beach, South Kingstown, 1

Long Pond Beach, Little Compton, 1

Round Pond Beach, Little Compton, 1

Briggs Beach, Little Compton, 1

Ship Pond Cove, Little Compton

Round Meadow Pond, Little Compton

Quicksand Pond Beach, Little Compton, 1

High Hill Marsh Barrier, Little Compton, 1 (eastern portion)

Sandy Point/West Beach, New Shoreham, 1

Casey Point, North Kingstown, 1

Greene Point, North Kingstown, 1

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, Portsmouth, 1 (2 separate areas)

Musselbed shoals, Portsmouth

Nag Pond/Jenny Pond, Portsmouth, 1

Gull Point, Portsmouth

Sheep Pen Cove, Portsmouth

McCurry Point, Portsmouth

Fogland Point, Tiverton, 1

Sapowet Point, Tiverton

Fox Hill Pond, Jamestown

Moderately Developed Barriers

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 Shoreham, 1

Second Beach, Middletown

Third Beach, Middletown

Tunipus Pond Beach, Little Compton

Watch House Pond Beach, Little Compton, 1

Sakonnet Harbor Beach, Little Compton, 1 (eastern portion)

Developed Barriers

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 (CBRA) prohibits federal subsidies for most new development and federal flood insurance for all new development. For the most up-to-date maps showing CBRA designations~~, contact the Division of Planning, Department of Administration~~ see US Fish & Wildlife Service website https://www.fws.gov/ecological-services/habitat-conservation/cbra/maps/mapper.html.

* 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.

C. Coastal Wetlands (formerly § 210.3)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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.~~

~~c. 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.~~

~~d. 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 bulk heading 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.~~

~~e. SLAMM has been used worldwide 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.~~

~~f. 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 (§ 1.1.9 of this Part) abutting coastal wetlands provide protected vegetated upland areas where coastal wetlands may migrate landward over time as sea levels rise.~~

~~g. 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.~~

1. Policies

a. The Council's goal is to preserve and, where possible, restore all coastal wetlands. All contiguous freshwater wetlands are protected under this Program, regardless of their size. (Note: this added text

was in the definition of contiguous coastal wetland (now moved to § 1.1.2) and has been added to this existing policy to preserve coastal wetlands.)

b. To offset past losses in coastal wetlands and unavoidable alterations to surviving coastal wetlands:

(1) disturbed wetlands should be restored as directed by the Council or enhanced when possible; and

(2) in areas selected on the basis of competent ecological study, the Council will encourage the building of new wetlands.

c. 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 § 1.3.1(G) of this Part), 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.

d. 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:

(1) residential docks and wetland walkover structures approved pursuant to the standards set forth in §§ 1.3.1(D) and 1.3.1(Q) of this Part, respectively;

(2) approved repair of structural shoreline protection facilities pursuant to § 1.3.1(N) of this Part; or,

(3) Council-approved restoration activities.

e. 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~~on the CRMC website at: http://www.crmc.ri.gov/maps.html. In these designated wetlands only the following alterations may be permitted: minor disturbances associated with:

(1) residential docks and wetland walkover structures approved pursuant to the standards set forth in §§ 1.3.1(D) and 1.3.1(Q) of this Part, respectively;

(2) approved repair of structural shoreline protection facilities pursuant to § 1.3.1(N) of this Part;

(3) Council-approved restoration activities; or

(4) Council-approved limited view restoration projects for existing hospitality industry businesses.

(AA) Approval of limited view restoration projects requires a public access plan consistent with § 1.3.6 of this Part 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.

f. Salt marshes adjacent to Type 3, 4, 5, and 6 waters that are not designated for preservation may be altered if:

(1) the alteration is made to accommodate a designated priority use for that water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and

(3) only the minimum alteration necessary to support the priority use is made.

g. Any alteration of coastal wetlands shall be consistent with § 1.3.1(L) of this Part.

h. 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.

i. 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.

j. 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~~ in § 1.8 of this Part and are available on the CRMC web site at: www.crmc.ri.gov.

2. Prohibitions

a. 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.

b. Alterations to salt marshes and contiguous freshwater or brackish wetlands abutting Type 2 waters are prohibited except as may be permitted in § 1.2.2(D)(3)(d) of this Part.

c. Alterations to coastal wetlands designated for preservation adjacent to Type 3, 4, 5, and 6 are prohibited except for the activities listed in § 1.2.2(D)(3)(e) of this Part. Dredging and filling in these designated coastal wetlands are prohibited.

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

e. Any limited view restoration project which does not strictly adhere to the Council's policies and standards as stated in §§ 1.2.2(D)(3) and (5) of this Part 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.

3. Standards

a. Limited View Restoration:

(1) A public access plan shall be provided consistent with § 1.3.6 of this Part.

(2) 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.

(3) 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 Part.

D. Coastal Headlands, Bluffs, and Cliffs (formerly § 210.4)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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 de-vegetation 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.~~

~~c. 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.~~

1. Policies

a. 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 de-vegetation 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. 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. Thus, it is the Council's policy to manage these systems as valuable sources of sediment for Rhode

Island beaches. (Note: this text is from findings above, but represents important policy consideration.)

b. The Council's goals are to:

(1) 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;

(2) prevent any construction in contiguous areas that may weaken the feature and has the potential of creating a hazard; and

(3) preserve the scenic and ecological values of these features.

c. 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.

d. 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.

e. 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:

(1) 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;

(2) the composition of the feature involved as well as its slope, stratigraphy, height, exposure, and vegetative cover;

(3) existing types and levels of use and alteration;

(4) 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

(5) 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.

f. The Council shall encourage the use of nonstructural methods to diminish frontal erosion associated with coastal cliffs and bluffs adjacent to Type 1 and Type 2 waters.

g. Construction or alterations to coastal cliff and bluffs contiguous to Type 2, 3, 4, 5 and 6 waters may be permitted if:

(1) the construction is undertaken to accommodate a designated priority use for the abutting water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and

(3) only the minimum alteration necessary to support the designated priority use is made.

h. 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.

E. Rocky Shores (formerly § 210.5)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

b. ~~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.~~

1. Policies

a. 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.

b. The alteration of rocky shores abutting Type 1 water areas, excepting approved projects for shoreline protection, is prohibited.

c. 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:

(1) 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;

(2) the composition of the feature involved and any significant plant or animal communities present;

(3) existing types and levels of use and alteration; and

(4) 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.

d. The construction of alterations to rocky shores adjacent to Type 3, 4, 5, and 6 waters may be permitted if:

(1) the construction is undertaken to accommodate a designated priority use for the abutting water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and

(3) only the minimum alteration necessary to support the designated priority use is made.

F. Manmade Shorelines (formerly § 210.6)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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.~~

1. Policies

a. 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. (Note: this text is from findings above, but represents important policy consideration.)

b. The Council's goals are:

(1) to encourage the maintenance of structures that effectively mitigate erosion and/or sustain landforms adjacent to the water; and

(2) prevent the accumulation of debris along the shore where such structures are ineffective or no longer in active use.

c. The Council encourages proper maintenance of existing shoreline protection structures (see § 1.3.1(G) of this Part).

d. 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.

e. The presence of isolated seawalls, bulkheads, and other similar structures does not constitute a manmade shoreline, as the term is used in this Program (Note: this text is from the definition (now moved to § 1.1.2), but is a policy as describing what is not considered a manmade shoreline.)

G. Dunes (formerly § 210.7)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. Human-altered foredunes constructed of sand-sized material able to be moved by the wind will move and grow similar to natural foredunes.~~

~~c. 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.~~

~~d. 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.~~

~~e. 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.~~

1. Policies

a. 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. (Note: this text is from findings above, but represents important policy consideration.)

b. 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. (Note: this was in definition section (now moved to § 1.1.2), but is a policy.)

c. The Council's goals are to:

(1) protect the foredune zone from activities that have a potential to increase wind or wave erosion;

(2) to prevent construction in high hazard areas and protect the public from dangerous storm forces;

(3) to enhance the ability of dunes to serve as a natural storm buffer; and,

(4) to protect the scenic and ecologic value of the foredune zone and dunes.

d. 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~~ 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. Onsite wastewater treatment systems (OWTS) have the potential to become buoyant or be damaged during a severe storm event causing raw sewage to spill onto the beach. Therefore, ~~No~~ no new ~~Individual Sewage Disposal Systems~~ OWTS shall be constructed within the 50 foot setback area from the dune or beaches or seaward of construction lines (see § 1.3.1(F) of this Part for definition of new OWTS). Walkover structures may be permitted over the dunes in order to gain access to the beach. (Note: added

text is from findings above, but represents important policy consideration.)

e. 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 access ways (e.g., dune walkover structures) on foredunes provided that all requirements of this section are met.

f. Alteration of the foredune adjacent to Type 3, 4, 5, and 6 waters may be permitted if:

(1) the alteration is undertaken to accommodate a designated priority use for the abutting water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable;

(3) only the minimum alteration necessary to support the designated priority use is made;

(4) there is no change in the usage of the property;

(5) there is no change in the footprint of existing structures; and,

(6) the construction will meet all current and applicable policies, standards, and requirements of the RICRMP.

g. 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.

2. Prohibitions

a. 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.

b. 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.

c. 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 §1.3.1(F) of this Part for definition of new ISDS).

1.2.3 Areas of Historic and Archaeological Significance (formerly § 220)

~~A. Findings~~ (Findings moved to new CRMP guidance document)

~~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 1500's, 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.~~

A. 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 RI Historical Preservation and Heritage 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 RI Historical Preservation and Heritage 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.

1.3 Activities Under Council Jurisdiction

1.3.1 In Tidal and Coastal Pond Waters, on Shoreline Features and Their Contiguous Areas (formerly § 300)

A. Category B Requirements (formerly § 300.1)

1. The requirements herein for a Category B Assent are necessary data and information for the purposes of federal consistency reviews. All persons applying for a Category B Assent are required to:

   a. Demonstrate the need for the proposed activity or alteration;

   b. 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 §§ 1.3.1(B), (C), (F), (H), (I), (K), (M), (O) and (Q) of this Part; for projects on state land, the state building official, for the purposes of this section, is the building official;

c. Describe the boundaries of the coastal waters and land area that is anticipated to be affected;

d. 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;

e. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life;

f. 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;

g. Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation;

h. Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;

i. Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance;

j. 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;

k. Demonstrate that measures have been taken to minimize any adverse scenic impact (see § 1.3.5 of this Part).

2. Each topic shall be addressed in writing and include detailed site plans and a locus map for the proposed project.

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

B. Filling, removing, or grading of shoreline features (formerly § 300.2)

1. Policies

a. Established agricultural practices in areas contiguous to shoreline features are excluded from this section. (Note: this text comes from definition of filling, removing, or grading of shoreline features in § 1.1.2 of this Part, but is a policy.)

b. 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.

c. All new activities subject to §§ 1.3.1(C) (residential, commercial, and industrial structures), 1.3.1(M) and 1.3.3 of this Part, 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.

d. 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 (see § 1.3.1(F) of this Part).

e. 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.

f. Filling, removing, or grading activities shall be reviewed at the Category B level when:

(1) the filling or removing involves more than 10,000 cubic yards of material;

(2) the affected area is greater than two acres; or

(3) the affected area is a designated historic area or archaeologically sensitive site.

2. Prohibitions

a. 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.

b. 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 (see § 1.3.1(L) of this Part).

c. On site beach materials (cobbles, sand, etc.) may not be used as construction material.

d. Mining is prohibited on coastal features.

3. Standards

a. The following standards apply in all cases where filling, removal, or grading is undertaken:

(1) Fill slopes shall have a maximum grade of 30 percent;

(2) 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;

(3) 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;

(4) Removal or placement of sediments along jetties or groins may be permitted only as part of an approved dredging or beach nourishment project (see § 1.3.1(I) of this Part);

(5) All fill shall be clean and free of materials which may cause pollution of tidal waters;

(6) Cutting into rather than filling out over a coastal bank is the preferred method of changing upland slopes; and

(7) 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.

b. 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

c. 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.

d. 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.

e. For any disturbance of steep slopes (over 15 percent):

(1) Where such construction is allowed, the following shall be observed:

(AA) no fill shall be allowed on the slope;

(BB) excavation shall be kept to an absolute minimum; and

(CC) 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.

C. Residential, commercial, industrial, and recreational structures (formerly § 300.3)

1. Policies

a. 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.

b. It is the Council's policy to require a public access plan, in accordance with § 1.3.6 of this Part, as part of any application for a commercial or industrial development or redevelopment project in or impacting coastal resources. In accordance with § 1.1.7 of this Part, 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.

c. 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.

2. Prerequisites

a. 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.

b. Applicants proposing new construction and/or alterations to existing structures shall demonstrate that all applicable requirements of the RI state building code (SBC) 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.

c. Applicants proposing to build, repair or alter an onsite wastewater treatment system (OWTS) 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/OWTS approval stamp.

d. Persons proposing activities that may impact the function of an existing OWTS 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.

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

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

(1) such connections are proposed by the applicant; or

(2) where on-site water withdrawal and/or sewage disposal will have a significant adverse environmental or public health impact.

g. 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.

3. Prohibitions

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

b. 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.

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

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

e. New decks and structures, and expanded structures associated with residential properties, or non-water dependent commercial uses, are prohibited in or over tidal waters.

f. 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:

(1) the deck is to accommodate a designated priority use for that water area;

(2) the applicant has examined all reasonable alternatives and the council has determined that the selected alternative is the most reasonable; and

(3) the deck is the minimum necessary to support the priority use.

g. See Table 2 in § 1.1.4 of this Part for a listing of additional prohibitions.

4. Standards

a. General:

(1) See standards given in "Filling, Removing, or Grading of Shoreline Features" in § 1.3.1(B) of this Part, as applicable.

(2) See standards given in "Sewage Treatment and Disposal" in § 1.3.1(F) of this Part, as applicable.

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

(4) 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).

(5) 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.

b. All new or existing commercial marine facilities (CMF) as defined in § 1.1.2 of this Part shall perform fitness of purpose inspections in accordance with the CRMC "Guidelines for Fitness of Purpose Investigations and Certifications." The addition of new structural components or systems on existing CMFs that are structurally independent of the existing components or systems shall be considered as "new."

(1) A post-event inspection is required for any CMF following a significant potentially damage-causing event such as a hurricane, vessel impact, fire or explosion. The primary purpose is to assess the integrity of structural and mechanical systems. This assessment will determine the operational status and/or any remedial measures required by the CRMC for the CMF.

(2) Post event notification shall be provided to the CRMC. The notification shall include, as a minimum:

(AA) Brief description of the event;

(BB) Brief description of the nature, extent and significance of any damage observed as a result of the event;

(CC) Operational status and any required restrictions; and

(DD) Statement as to whether a post-event inspection will be carried-out.

(3) The CRMC may carry out or cause to be carried out, a post-event inspection. In the interim, the CRMC may modify or limit the operations through Assent suspension. If a post-event inspection is required, an action plan shall be submitted to the CRMC within five (5) days after the event. This deadline may be extended in special circumstances. The action plan shall include the scope of the inspection (above water, underwater, mechanical systems, physical limits, applicable berthing systems, etc.) and submission date of the final report. The action plan is subject to CRMC approval.

~~b~~c. Residential, commercial, industrial, and recreational buildings:

(1) Excavation and grading shall be restricted to those activities and areas necessary for the construction of the building and/or appurtenant structures (see § 1.3.1(B) of this Part).

(2) Applicants shall be required to reduce the inflow of pollutants carried by surface runoff in accordance with the policies and standards contained in § 1.3.1(F) of this Part and as detailed in the most recent version of the Rhode Island Stormwater Design and Installation Standards Manual.

6. 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)~~.

a. 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.

7. ~~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:

a. For construction in wave velocity (V) zones as defined by ~~Federal~~ FEMA Flood Insurance Rate Maps:

(1) 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.

(2) Pilings in ocean fronting areas should penetrate no less than 10 feet below mean sea level.

(3) 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.

(4) To secure the exterior wall to the floor joists, galvanized metal strap connections should be used connecting the exterior wall studs to the joists.

(5) Roof trusses or rafters should be connected to the exterior wall with galvanized metal straps.

b. For construction in coastal ~~stillwater~~ (A) Flood Zones.

(1) Items 1, 2, 3, 4, 5 as listed in § 1.3.1(C)(7)(a) of this Part for V zone construction should, if applicable, be employed.

(2) 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.

(3) 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.

D. Recreational boating facilities (formerly § 300.4)

1. Policies

a. Pursuant to R.I. Gen. Laws § 46-23-6(9) recreational boating facilities as defined in § 1.1.2 of this Part by and properly permitted by the Council, are deemed to be one of the uses consistent with the public trust."

c. 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.

d. 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.

e. 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. Gen. Laws Chapter 46-23, and the Rhode Island Coastal Resources Management Program.

f. 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 8 of this Part (Minimum design criteria). For marinas see § 1.3.1(N) of this Part.

g. Table 6: Existing residential and limited recreational boating facility modification request for permitted structures

Dock condition	Application type
Functional dock to be replaced in its entirety	Maintenance
Functional dock to be replaced in its entirety in Type 1 waters	Maintenance
Functional Dock destroyed (>50%) by storm or natural Hazard in Type 1 Waters	Cannot be replaced or special Exception
Existing Dock field assessed by CRMC Staff as >50% destroyed in Type 1 Waters	Cannot be Replaced or Special Exception
Functional Dock, destroyed (>50%) in a storm/natural hazard	New
Dock, not functional, field assessed as >50% destroyed	New

Functional Dock, to be replaced in its entirety	Refer to § 1.3.1(N) of this Part
dock, not in compliance at time of permit	Refer to § 1.3.1(N) of this Part
Adding to existing Dock	
Existing dock does not need to be brought into compliance, proposed addition must meet current regulations	Modification
Addition is over 50% of length or width of dock	New

h. In the event of catastrophic storms, § 1.1.12 of this Part (Emergency Assents) may apply to the above table at the discretion of the Executive Director.

i. 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 municipal documentation that demonstrates that:

(1) except as provided below, an outhaul(s) is/are to be permitted to the contiguous waterfront property owner; and,

(2) up to two (2) outhauls may be allowed per waterfront property; and,

(3) outhauls are not permitted on properties which contain a recreational boating facility; and,

(4) procedures have been adopted to ensure that permits are only issued consistent with the RICRMP, including the provisions of § 1.3.1(R) of this Part; and,

(5) the 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,

(6) 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,

(7) 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.

j. The Council may recognize and issue its own Assent for a pre-existing recreational boating facility upon proof of an Army Corps of Engineers permit; a town or city council authorization issued prior to 1972; a harbor commission authorization issued prior to 1972; and/or, a Rhode Island Division of Harbors and Rivers permit issued prior to 1972. The CRMC will issue a registration plate and number that will be assigned to that specific structure.

2. 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. 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. 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.

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 § 1.3.6 of this Part (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 § 1.1.7 of this Part, 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.

3. 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. The registration plate and number must be permanently affixed to the facility on its most seaward face and be visible from the navigation channel or fairway to the structure at all times.

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 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 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 per lot of record as of October 7, 2012 to minimize user conflicts and cumulative impacts in tidal waters.

g. Assents for limited recreational boating facilities 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.

h. It is the Council's policy to ultimately remove all recreational boating facilities located in Type 1 waters (see § 1.2.1(A) of this Part). The Council recognizes that pre-existing recreational boating facilities in Type 1 waters built prior to January 1, 1985 may not meet current Council standards and policies. Such facilities are not required to reapply under this subsection provided the Council has authorized the facility by issuance of an assent including maintenance. ~~To be eligible for an Assent,~~ Unless such facilities have been previously authorized by the Council, such facilities shall not pose any significant risk to the coastal resources of the state, such as significant impacts to salt marshes, and shall not endanger human

safety to be eligible for an assent. Applicants shall provide clear and convincing evidence for unauthorized pre-existing recreational boating facilities that:

(1) the facility exists in substantially the same configuration as it did prior to January 1, 1985;

(2) the facility is presently intact and functional; and

(3) the facility presents no significant threat to coastal resources nor to human safety.

4. Prerequisites

a. 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.

5. 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.

b. 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 herein.

c. 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:

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

(2) 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.

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

(4) An application for a Council Assent for a marina and/or mooring area 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.

6. 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 § 1.3.1(D)(11) of this Part (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 § 1.1.7 of this Part 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 § 1.1.6 of this Part, to the application.

f. Variances may be granted to all of the standards contained in §§ 1.3.1(D)(11) and 1.2.1(B) of this Part 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 § 1.3.1(D)(11)(k) of this Part;

(2) the Executive Director or the Deputy Director may only grant a variance to within eighteen (18) inches of the marsh grade standard (§ 1.3.1(D)(11)(g) of this Part) 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 (§ 1.3.1(D)(11)(l) of this Part) provided engineering, biological, and other appropriate concerns are met.

7. Prohibitions

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

b. 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~~ authorized by ~~the Rhode Island Division of Harbors and Rivers,~~ the Army Corps of Engineers, or the CRMC or predecessor agencies. Additionally, in those instances where an applicant cannot produce ~~a previous assent~~an authorization from said agencies or an approval by the Council to maintain facilities not previously registered with the Council, but can demonstrate by clear and convincing evidence that a ~~residential dock~~recreational boating facility in Type 1 Waters pre-existed and has been continuously functional prior to the formation of the Council, the Council may grant a permit provided the applicant can meet the requirements herein. 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.

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

d. 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 § 1.3.1(P) of this Part (Boat Lift and Float Lift Systems).

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

f. 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).

g. New residential or limited recreational boating facilities are prohibited from having both a fixed T section or L-section, and a float.

h. Terminal Floats at residential and limited recreational docks in excess of two hundred (200) square feet are prohibited.

i. Residential recreational docks shared by owners of waterfront property are prohibited from exceeding more than two (2) terminal floats and a combined total terminal float area in excess of three-hundred (300) square feet.

j. 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.

k. The installation or use of more than one (1) residential or limited recreational boating facility per lot of record as of October 7, 2012 is prohibited.

l. The construction and use of cribs for residential or limited recreational boating facilities is prohibited when located within coastal wetlands.

8. Standards

a. 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.

b. 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.

c. 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.

d. All new or significantly expanded recreational boating facilities shall comply with the policies and prohibitions of § 1.3.1(R) of this Part (Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern).

9. Marina standards

a. All new or significantly expanded marina designs shall be in accordance with Table 8 in § 1.3.1(D) of this Part (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 (Minimum Design Loads For Buildings and Other Structures, 2016) and FEMA Manual 55(Coastal Construction Manual, 2011) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations. 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 § 1.3.1(A) of this Part (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 7 of § 1.3.1(D) of this Part (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.

i. 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.

(1) Table 7: 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

j. 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.

k. 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.

l. 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.

m. 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 § 1.3.1(D)(9)(o) of this Part, 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 in § 1.3.1(D)(9)(q) of this Part 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 § 1.3.1(D)(9)(o) of this Part. Any repair or replacement of floats for existing marinas shall meet current float design standards.

n. 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 § 1.3.1(D)(9)(n) of this Part;

(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.

o. 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 §§ 1.3.1(D)(9)(m), 1.3.1(D)(9)(n) and 1.3.1(D)(9)(p) of this Part 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.

p. 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.

q. 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 § 1.3.1(N) of this Part;

(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 § 1.3.1(D)(9)(o) of this Part 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 onetime 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.

r. 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.

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

t. 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.

u. Any alterations to mooring areas shall be consistent with any CRMC approved municipal harbor management rules, regulations or programs, as defined in § 1.3.1(O) of this Part.

v. 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 shown in Table 7 in § 1.3.1(D) of this Part (Minimum Required Sanitary Facilities).

w. 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.

x. 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.

y. 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).

z. 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 in October 2011.

aa. 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 promulgated under 36 C.F.R. Part 1191. 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.

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

10. 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.

11. Residential and limited recreational docks, piers, and floats standards

a. All residential and limited recreational dock designs shall be in accordance with Table 8 in § 1.3.1(D) of this Part (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 ASCE 7 (Minimum Design Loads For Buildings and Other Structures, 2016) and FEMA Manual 55 (Coastal Construction Manual, 2011) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations. 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 in §§ 1.3.1(B) and 1.3.1(C) of this Part. 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 and may be reviewed as a Category A application. Residential boating facilities shared by owners of waterfront property may have a maximum of two (2) terminal floats not to exceed a combined total terminal float area of three-hundred (300) square feet. Such applications may be reviewed as a Category A application. In excessive fetch areas only, the terminal float size shall not exceed two hundred (200) square feet and shall be reviewed as a Category B application. The combined terminal float size for shared residential boating facilities shall not exceed three-hundred (300) square feet regardless of fetch. 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§ 1.3.1(Q) of this Part, 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. CRMC authorization for a recreational boating facility allows a dock 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 policy, 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.

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 not exceed six (6) feet by six (6) feet in footprint dimension 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.

(3) 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. Following construction the applicant shall submit an as-built plan stamped by a RI registered land surveyor showing the as-built location along with the CRMC designer's dock as-built form required by § 1.3.1(D)(11)(t) of this Part. Any discrepancy from the CRMC approved dock location will require relocation of the dock to the approved location.

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 and limited recreational docks, piers, and floats shall be setback at least fifty (50) feet from approved mooring fields and three-times the U.S. Army Corps of 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 § 1.3.1(N) of this Part. 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 applicants for 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~~submit the CRMC designer's dock as-built form and an as-built survey within thirty (30) days following construction. The as-built survey shall show the following:

(1) location of the dock in relation to the property lines;

(2) the most seaward end of the dock marked in state plane coordinates; and

(3) the as-built length and width including all terminal floats and boat lifts.

u. Recreational boating facilities other than marinas and those facilities associated with residential development, where applicable, shall follow the design standards contained herein including those described in Table 8 in § 1.3.1(D) of this Part.

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 § 1.3.1(R) of this Part, 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.~~

zy. All residential and limited recreational boating facilities must have affixed to them a registration plate and number located on the seaward face of the most seaward piling. If a facility does not have pilings and/or is generally a floating structure, or is built on crib supports, then the registration plate must be affixed to the seaward face of the most seaward dock or floating dock. Regardless of the type of residential or limited recreational boating facility structure, the registration plate and number must be permanently affixed to the facility on its most seaward face and be visible from the navigation channel or fairway to the structure at all times.

12. 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.

b. Boat lifts, suitably designed and installed, are encouraged for docks with excessive fetch.

c. Residential and limited recreational docks with excessive fetch shall provide uplift calculations as part of the required calculation package.

d. 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 (Minimum Design Loads For Buildings and Other Structures, 2016) and FEMA Manual 55 (Coastal Construction Manual, 2011) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

e. 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.

f. All residential and limited recreational docks with excessive fetch shall be inspected and certified every five (5) years by a Registered Professional Engineer licensed in Rhode Island that all elements of the dock and lift system meet the requirements of ASCE 7 (Minimum Design Loads For Buildings and Other Structures, 2016) or FEMA Manual 55 (Coastal Construction Manual, 2011) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

g. Table 8: Minimum design criteria

Min. pile tip diameter	10"	Min / max float freeboard	8" / 30"
Min. pile butt 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'		

13. Residential and limited recreational boating facilities – Violations

a. If a registration plate is not present on a recreational boating facility structure, the CRMC will inform the owner in writing that the owner must secure a registration plate on the dock in accordance with the requirements herein. The dock owner will have 45 days to respond to this written notice. The CRMC may invoke enforcement actions and its fine and fee schedules as specified below.

b. Enforcement actions shall be registered on land evidence records. Upon proof that an enforcement action has been satisfactorily addressed by a property owner in violation of these provisions, the CRMC will notify the property owner in writing that the violation may be removed from the land evidence records. The property owner may then cause the enforcement action to be removed from the land evidence records and shall notify the CRMC and show proof of such removal by registered letter.

c. Each issuance of violation is considered to be a new violation, and subject to the following fine schedule.

14. Residential and limited recreational boating facilities – Fine schedule

a. Registration plate not posted: $1,000

b. Use of plate not registered to dock: $1,000

c. Non-compliance with assent/permit stipulations: Up to $1,000

d. Non-compliance with § 1.3.1(D) of this Part: Up to: $1,000

e. Each subsequent violation: Up to: $1,000 per violation

f. Lost or stolen plates not reported within 60 days: $100

E. Mooring and anchoring of houseboats and floating businesses (formerly § 300.5)

1. Policies

a. 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.

b. 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.

c. 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.

2. Prohibitions

a. Houseboats and floating businesses are prohibited from berthing or mooring in coastal ponds pursuant to R.I. Gen. Laws § 46-22-9.1, and in all Type 1 and 2 waters.

b. Houseboats are prohibited from mooring or anchoring in all other tidal waters of the state unless within the boundaries of a marina.

c. 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.

d. 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.

3. Additional Category B requirements

a. Applicants for floating businesses shall:

(1) demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity;

(2) 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

(3) demonstrate that there will be no significant conflict with riparian rights or harbor lines.

4. Standards

a. Applicants for either houseboats or floating businesses shall meet all pertinent standards given in § 1.3.1(D) of this Part under standards for residential docks, piers, and floats.

b. Houseboats and floating businesses shall tie into marina or port holding tank pumpout facilities where available.

F. Treatment of sewage and stormwater (formerly § 300.6)

1. Policies

a. 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.

b. 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.

c. 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.

d. 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual, and which satisfies the requirements of the RICRMP and any applicable Special Area Management Plan.

e. The most recent version of the RIDEM 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 (http://www.dem.ri.gov/programs/water/permits/ripdes/stormwater/soil-erosion.php), 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.

f. 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:

(1) impacts to salt marshes such as changes in species composition due to the introduction of freshwater to high marsh areas;

(2) changes in the salinity of receiving waters;

(3) thermal impacts to receiving waters;

(4) the effects of introducing stormwater runoff to receiving waters with low dissolved oxygen concentrations; and

(5) other potential water quality impacts.

g. 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.

h. To show that a proposed development has met a standard to the maximum extent practicable, the applicant must demonstrate the following: (Note: this is existing text from the definition of "maximum extent practicable" in § 1.1.2. This portion of definition is policy.)

(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.

2. Prerequisites

a. 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.

b. 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.

c. 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.

d. 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.

3. Prohibitions

a. Point source discharges of sewage and/or stormwater runoff are prohibited on unconsolidated coastal banks and bluffs.

b. 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.

c. Point source discharges of sewage are prohibited in Type 1 waters.

4. Standards

a. For Onsite Wastewater Treatment Systems (OWTS):

(1) See standards in § 1.3.1(B) of this Part (Filling, removing, or grading).

(2) The construction, repair or alteration of all OWTS and components shall conform to the standards set forth in the most recent RIDEM 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.

(3) 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.

(4) Sub-drains constructed to lower groundwater levels in an area where an OWTS will be located shall:

(AA) conform to all applicable DEM rules;

(BB) have no piping located between the anticipated OWTS and the shoreline; and

(CC) have exposed outfalls suitably protected against shoreline erosion and scour.

(5) 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.

(6) 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.

(7) Where necessary, barriers shall be constructed to prevent vehicles from passing or parking over septic systems, unless permissible in accordance with DEM OWTS Rules.

(8) 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."

b. 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual~~2010 Stormwater Manual~~, as amended, shall apply to all CRMC applications submitted on or after January 1, 2011.

(1) ~~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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual, as amended~~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. Gen. Laws § 45-23-40.

(2) 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~~ any application submitted to the CRMC after June 30, 2011 shall comply with the RIDEM Rhode Island Stormwater Design and Installation Standards Manual, as amended~~2010 Stormwater Manual~~.

c. For stormwater management the Council requires, in accordance with the "Smart Development for a Cleaner Bay Act of 2007" (see R.I. Gen. Laws § 45-61.2), that all applicable projects meet the following requirements:

(1) Maintain pre-development groundwater recharge and infiltration on site to the maximum extent practicable;

(2) Demonstrate that post-construction stormwater runoff is controlled, and that post-development peak discharge rates do not exceed pre-development peak discharge rates; and

(3) Use low impact-design techniques as the primary method of stormwater control to the maximum extent practicable.

d. Residential, commercial, industrial or public recreational structures as defined in § 1.3.1(C) of this Part 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual. Single-family dwelling projects, however, may meet these provisions as detailed below in §§ 1.3.1(F)(3)(h) and (i) of this Part, below.

e. Roadways, highways, bridges, and other projects subject to § 1.3.1(M) of this Part 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual. Any improvement projects to existing roads, highways and bridges and other projects subject to § 1.3.1(M) of this Part 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.

f. 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual. Maintenance activities subject to § 1.3.1(N) of this Part 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.

g. 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:

(1) impacts to coastal wetlands such as changes in species composition due to the introduction of freshwater to high marsh areas;

(2) changes in the salinity of tidal receiving waters;

(3) thermal impacts to receiving waters;

(4) effects of introducing stormwater runoff to receiving waters that have low dissolved oxygen concentrations; and

(5) other potential water quality impacts as may be identified by CRMC staff.

h. Applicants for single-family residential dwellings and accessory structures shall treat the stormwater runoff water quality volume (WQv) 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 RIDEM 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 § 1.3.1(F)(4)(i) of this Part below. Pretreatment of stormwater runoff is not required for single-family residential applications.

i. 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 alongside the driveway or parking area.

j. 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 RIDEM 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.

k. 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.

l. 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 RIDEM 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.

m. 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 RIDEM 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 RIDEM Rhode Island Stormwater Design and Installation Standards Manual to the maximum extent practicable.

n. For outfalls:

(1) 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.

(2) Where possible, outfall pipe slopes shall be designed for an exit velocity of less than 5 feet per second.

(3) Screens or grates shall be placed over the end of large outfalls to trap debris.

(4) Beaches or other coastal features in front of outfalls shall be returned to original grade.

(5) 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.

(6) Riprap shall be compact, hard, durable, angular stone, with an approximate unit weight of 165 lbs./cubic foot.

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

o. Applicants with new or modified single-family dwelling projects subject to the stormwater management provisions herein shall submit the following information:

(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.

p. Applicants for all other projects subject to the stormwater management provisions herein shall submit the following information:

(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 RIDEM 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.

G. Construction of shoreline protection facilities (formerly § 300.7)

1. Policies

a. The Council favors nonstructural methods for controlling erosion such as stabilization with vegetation and beach nourishment.

b. 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.

c. 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.

d. 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 § 1.1.9 of this Part 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.

2. Prerequisites

a. 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 C.F.R. § 930.

3. Prohibitions

a. The Council shall prohibit new structural shoreline protection methods on barriers classified as undeveloped, moderately developed, and developed and in Type 1 waters.

b. The Council shall prohibit the use of limited applications of riprap to protect structures ancillary to the primary structure.

c. Filling on a coastal feature or tidal waters beyond that which is consistent with § 1.3.1(G)(5)(a) of this Part is prohibited.

d. Structural shoreline protection facilities are prohibited when proposed to be used to regain property lost through historical erosion or storm events.

4. Additional Category B Requirements

a. Applicants for structural shoreline protection measures to control erosion shall, on the basis of sound professional information, demonstrate in writing all of the following:

(1) an erosion hazard exists due to natural erosion processes and the proposed structure has a reasonable probability of controlling this erosion problem;

(2) 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;

(3) 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;

(4) the proposed structure is not likely to increase erosion in adjacent areas;

(5) 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;

(6) describe the long term maintenance program for the facility including financial commitments to pay for said maintenance; and

(7) new breakwaters, jetties, bulkheads, revetments, and seawalls shall be designed and certified by a registered professional engineer.

b. 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.

c. 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.

d. 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.

5. Standards

a. All applicable standards for earthwork in § 1.3.1(B) of this Part 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.

b. 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.

c. 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.

d. 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.

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

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

g. 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~~standards.

Fetch (nautical miles)	Weight (lbs.)	Size (cubic yards)
1	400	1/10
2	1000	1/4
3	2500	1
4	5000	2
≥ 5	≥ 8000	≥ 2

h. 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~~standards.

i. 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.

j. 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.

k. All construction activities shall minimize any adverse impact to water quality such as disturbance of sediment.

6. Maintenance and repair

a. 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.

b. 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.

c. All maintenance and repair activities shall minimize any adverse impact to water quality such as disturbance of sediments.

d. All applicable standards for earthwork (Section 300.2) shall be met for repair or maintenance activities.

e. 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.

H. Energy-related activities and structures (formerly § 300.8)

(Note: CRMC Energy Amendments (formerly § 600 of the CRMP, and which will be concurrently repealed) have been integrated into § 1.3.1(H) along with a requirement for a certified verification agent below.)

1. Planning for energy facilities

a. Planning policies

(1) For applicable policies and standards pertaining to offshore renewable energy facilities see Subchapter 20-05 of this Title (CRMC Rhode Island Ocean Special Area Management Plan).

2. Siting of energy facilities

a. Policies and regulations

(1) Facilities for the processing, transfer and storage of petroleum products and the production of electrical power provide services necessary to support and maintain the public welfare and the state's economy. Such facilities, whether sited in the coastal region or elsewhere, have a high probability of affecting coastal resources and land uses because of their large size, environmental and aesthetic impacts, and impacts on surrounding land uses and broad development patterns.

(2) In order to properly and effectively discharge legislatively delegated responsibilities related to the location, construction, alteration and/or operation of energy facilities, including facilities for the processing, transfer and storage of petroleum products and the production of electrical power, the Council finds a need to require in all instances a permit for such location, construction, alteration and/or operation within the State of Rhode Island where there is a reasonable probability of conflict with a Council plan or program, or damage to the coastal environment.

(3) The siting, construction, alteration and/or operation of petroleum processing, transfer or storage facilities and power generating facilities within the State of Rhode Island shall require a Council permit when there is reasonable probability demonstrated by reliable and probative evidence that the proposal will:

(AA) conflict with any Council management plan or program.

(BB) make any area unsuitable for any uses or activities to which it is allocated by a Council Plan or Program, or

(CC) significantly damage the environment of the coastal region.

(4) Applicants for energy facilities must consider the projected impacts of climate change, including but not limited to projected storm surge, coastal erosion and sea level rise to these facilities.

(5) Applicants shall be further required to demonstrate by reliable and probative evidence that:

(AA) alternative sites have been considered and rejected for environmental, economic and/or operational reasons.

(BB) construction and/or operation will be in conformance with all applicable environmental standards, guidelines and objectives.

(CC) siting will not cause secondary developments that are inconsistent with the State Guide Plan or approved municipal comprehensive plans.

(DD) operation will not degrade aquifers or water bodies utilized for public water supply, and

(EE) adequate procedures for the safe transport and/or disposal of products, materials and/or wastes hazardous to man or the coastal environment will be taken, including emergency containment and cleanup.

(6) Where on the basis of such evidence and/or demonstrations the Council finds a reasonable probability of noncompliance with any applicable policy or regulation, including § 1.3.8(B) of this Part, it shall require appropriate modification of or shall deny the application in question.

(7) Recipients of approved Council permits shall be required to maintain such records as may be necessary to monitor and ensure compliance of facility operations with all applicable Policies as set forth above.

(8) Offshore renewable energy projects shall comply with the policies and standards in Subchapter 20-05 of this Title (CRMC Rhode Island Ocean Special Area Management Plan).

3. Certified verification agent (CVA) requirement for energy-related activities defined in § 1.1.2 of this Part for which the CRMC has jurisdiction or requires a permit in accordance with §§ 1.1.4 and 1.3.3 of this Part, and as required by the CRMC executive director to review projects that are outside the scope of CRMC staff expertise.

a. The CVA is an independent third-party agent that shall use good engineering judgment and practices in conducting an independent assessment of the design and construction of the proposed energy-related activities. The CVA shall have licensed and qualified professional engineers on staff. The CVA is paid for by the applicant, but is approved by and reports to the Council.

b. The applicant shall not engage a CVA prior to Council approval, and the CVA must be approved by the Council prior to starting construction.

c. The applicant shall use a CVA to:

(1) Ensure that the applicant's facilities are designed and constructed in conformance with accepted engineering practices;

(2) Ensure that repairs and major modifications are completed in conformance with accepted engineering practices; and

(3) Provide the Council immediate reports of all incidents that affect the design and construction of the project.

d. The applicant shall nominate a CVA for the Council approval and shall submit to the Council a qualification statement that includes the following:

(1) Previous experience in third-party verification or experience in the design and construction, or major modification of energy-related activities;

(2) Technical capabilities of the individual or the primary staff for the specific project;

(3) Size and type of organization or corporation;

(4) In-house availability of, or access to, appropriate technology (including computer programs, hardware, and testing materials and equipment);

(5) Ability to perform the CVA functions for the specific project considering current commitments;

(6) Previous experience with the Council requirements and procedures, if any; and

(7) The level of work to be performed by the CVA.

e. Individuals or organizations acting as CVAs shall not function in any capacity that shall create a conflict of interest, or the appearance of a conflict of interest.

f. The verification shall be conducted by or under the direct supervision of registered professional engineers.

g. The applicant shall nominate a new CVA for the Council approval if the previously approved CVA:

(1) Is no longer able to serve in a CVA capacity for the project; or

(2) No longer meets the requirements for a CVA set forth in this subpart.

h. The CVA shall conduct an independent assessment of all proposed:

(1) Operational requirements;

(2) Environmental loading data;

(3) Stress analyses;

(4) Material designations;

(5) Soil and foundation conditions;

(6) Safety factors; and

(7) Other pertinent parameters of the proposed design.

i. The CVA shall do all of the following:

(1) Use good engineering judgment and practice in conducting an independent assessment of the construction of the facility;

(2) Monitor the construction of the facility with periodic site inspections to ensure that it has been built and installed according to the facility design;

(3) Make periodic onsite inspections while construction is in progress; and

(4) Certify in a report that the facility is constructed in accordance with accepted engineering practices.

(AA) The certification report shall also identify the location of all records pertaining to design and construction.

(BB) The applicant may commence commercial operations or other approved activities thirty (30) days after the Council receives that certification report, unless the

Council notifies the applicant within that time period of its objections to the certification report.

j. If the CVA finds that design and construction procedures have been changed or design specifications have been modified, the CVA shall inform the applicant and the Council.

k. The CVA shall make periodic onsite inspections while construction of the facility is in progress and shall verify the following items, as appropriate:

(1) Quality control by builder;

(2) Material quality and identification methods;

(3) Adherence to structural tolerances specified;

(4) Nondestructive examination requirements and evaluation results of the specified examinations;

(5) Destructive testing requirements and results;

(6) Repair procedures;

(7) Status of quality-control records at various stages of construction.

l. The CVA shall spot-check the equipment, procedures, and recordkeeping as necessary to determine compliance with the applicable documents incorporated by reference and the regulations under § 1.3.1(H)(3) of this Part.

m. The CVA shall prepare and submit to the applicant and the Council all reports required by § 1.3.1(H)(3) of this Part. The CVA shall also submit interim reports to the applicant and the Council, as requested by the Council. The CVA shall submit one electronic copy and four paper copies of each final report to the Council. In each report, the CVA shall:

(1) Give details of how, by whom, and when the CVA activities were conducted;

(2) Describe the CVA's activities during the verification process;

(3) Summarize the CVA's findings; and

(4) Provide any additional comments that the CVA deems necessary.

n. The applicant shall compile, retain, and make available to the Council representatives, all of the following:

(1) The as-built drawings;

(2) The design assumptions and analyses;

(3) A summary of the design and construction examination records;

(4) Results from the required inspections and assessments;

(5) Records of repairs not covered in the inspection report submitted.

o. The applicant shall record and retain the original material test results of all primary structural materials during all stages of construction. Primary material is material that, should it fail, would lead to a significant reduction in facility safety, structural reliability, or operating capabilities.

p. The applicant shall provide the Council with the location of these records in the certification statement.

q. The Council may hire its own CVA agent to review the work of the applicants CVA. The applicant shall be responsible for the cost of the Council's CVA. The Council's CVA shall perform those duties as assigned by the Council.

~~1~~4. Prerequisites

a. 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.

~~2~~5. Prohibitions

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

~~3~~6. Additional Category B requirements

a. ~~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.~~ Unless preempted under

the regulations of the Federal Energy Regulatory Commission ~~T~~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:

(1) environmental impacts,

(2) social impacts,

(3) economic impacts,

(4) alternative sites,

(5) alternative means to fulfill the need for the facility,

(6) demonstration of need, and

(7) consistency with state and national energy policies.

b. Shorefront sites shall demonstrate the need for access to navigable waters or cooling and/or process water.

c. 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 (see § 1.3.1(C) of this Part).

47. Standards

a. See standards given in "Filling, removing, or grading" in § 1.3.1(B) of this Part, as applicable.

b. See standards given in "Residential, commercial, industrial, and public recreational structures" in § 1.3.1(C) of this Part, as applicable.

c. See standards given in "Treatment of sewage and stormwater" in § 1.3.1(F) of this Part, as applicable.

8. Transfer of petroleum products

a. Policies and regulations for transportation by vessel

(1) All vessels engaged in the transportation of petroleum products in the waters of the state shall comply with all applicable federal, state, and local laws and regulations.

(2) It shall be the adopted policy of the Council to support the Coast Guard in the following actions:

(AA) implementation of an oil spill contingency plan for southern New England in cooperation with appropriate bodies in other states.

(BB) re-evaluation and upgrading of vessel design standards especially as these relate to the prevention and/or mitigation of accidental spills of petroleum products.

(CC) re-evaluation and upgrading of operational rules relating to transport of petroleum products in near shore waters and coastal embankments.

(DD) formulation of standards for crew training and qualification of all vessels including barges utilized in the transport of petroleum products.

(3) The storage of liquefied natural gas (LNG) and liquefied petroleum gas (LPG) may have impacts to Rhode Island's coastal resources and use, and the Council will evaluate and weigh these impacts.

b. Policies and regulations for transfer via pipeline:

(1) The siting and construction of any pipeline in or across the land and/or tidal water bodies of the Rhode Island coastal region shall require a Council permit.

(2) Applicants for such a permit shall demonstrate by a fair preponderance of evidence that the proposed action will not:

(AA) conflict with any Council management plan or program;

(BB) make any area unsuitable for any uses or activities to which it is allocated by a Council management plan or program, or

(CC) significantly damage the environment of the coastal region.

(3) In addition to those requirements set forth in § 1.3.1(H)(2) of this Part, it shall be further demonstrated by reliable and probative evidence that the coastal resources are capable of

supporting the proposed activity including the impacts and/or effects related to:

(AA) scheduling and duration of construction relative to recreational, wildlife and fisheries use of affected areas;

(BB) the degree and nature, if any, of site reclamation proposed; and

(CC) exposure of the proposed pipelines to hazardous bottom conditions.

c. Policies and regulations for vessel to vessel transfer

(1) Transfer operations for petroleum and petroleum products. Pre-transfer conference: No person shall commence or cause to be commenced or consent to the commencements of bulk oil transfer operations unless the following items have been reviewed, agreed upon, and compiled with by personnel of the vessels involved.

(AA) a licensed officer or certified tanker man who has full knowledge of the vessel's tanks and cargo handling system shall be in charge of cargo handling for each vessel receiving or discharging oil at all times;

(BB) a sufficient number of adequately trained men shall be assigned to be constantly on duty on the vessels during cargo transfer operations, to keep the transfer operation under constant observation to insure immediate action in case of a malfunction;

(CC) cargo sequence for loading or discharging products and the proper baseline for each product has been established;

(DD) the handling rate at which oil will be transferred has been established. Reduced rates are required when commencing transfer, changing the lineup, topping off tanks or nearing completion of transfer;

(EE) the amount of time to be given when the offloading vessel desires to start, stop, or change the rate of flow has been determined;

(FF) a positive communication and signal system shall be operable during all transfer operations;

(GG) the emergency procedures to be followed in order to stop and contain any discharge shall have been established; and

(HH) personnel responsible for transfer shall be clearly identifiable at all times; prior to transfer operations, personnel responsible for transfer shall be made known to each other.

(2) Transfer procedures: No person shall transfer or cause to be transferred or consent to the transfer of any oil from any oil carrying vessel to any other oil carrying vessel unless:

(AA) all equipment through which oil may pass during transfer operations has been inspected visually prior to each operation. Any hose used in the transfer shall be pressure tested annually and shall not be subjected to transfer pressures greater than 75 percent of the last pressure test or greater than the rated hose pressure, whichever is less. All hoses used in the transfer of petroleum products from vessel to vessel shall be marked with a hose number. These markings shall be in color sharply contrasting with the color of the hose and shall be not less than one and one half inches high. The operator shall keep a log book of all tests conducted on the individual hoses. This log book shall contain the hose number, the test pressure, the date of test, the place of test, and the signature of the person conducting the test. This log book shall be available for inspection by a representative of the Coastal Resources Management Council;

(BB) hoses are supported so as to avoid crushing or excessive strain. Flanges, joints and hoses shall be checked visually for cracks and wet spots;

(CC) hose handling rigs are of a type which allows adjustments for vessel movement and hoses shall be long enough so that they will not be strained by any movement of the vessels;

(DD) hose ends are blanked tightly when hoses are moved into position to be connected, and also immediately after they are disconnected and drained into a drip pan;

(EE) hoses are not permitted to chafe on vessels or to be in contact with hot surfaces such as stream pipes or to be exposed to other corrosive sources;

(FF) mooring lines and lines securing the vessels to each other are tended to prevent excessive movement of the vessels; and

(GG) the surrounding water shall be inspected frequently during transfer operations. A log of all such inspections shall be kept and signed by the person making the inspection and shall be available for inspection by a representative of the Coastal Resources Management Council.

(3) Vessel to vessel transfer: Off-loading requirements: No person shall transfer or cause to be transferred or consent to the transfer of any bulk oil from any oil carrying vessel to any other oil carrying vessel unless:

(AA) sea valves connected to the cargo piping and stern loading connections are tightly closed and sealed with a numbered seal which is to be logged in the ship's log book;

(BB) the licensed officer on duty must see that all valves and lines in the pump room are properly lined up for discharge. An additional check must be made for the same purpose each time the setting is changed;

(CC) full rate of discharge is not attained until lines of receiving vessel are proven clear; and

(DD) upon completion of transfer operations, hoses or other connecting devices shall be vented, blown down, or sucked out to drain the remaining oil. A drip pan shall be in place when breaking a connection and the end of the hose or other connecting devices shall be blanked off before being moved.

(4) Vessel to vessel transfer: Receiving requirements: No person shall transfer, or cause to be transferred, or consent to the transfer of any bulk oil from any oil carrying vessel to any other oil carrying vessel unless:

(AA) all sea valves connected to the cargo piping, stern discharge and ballast discharge valves are closed and sealed with a numbered seal which is to be

logged in the ship's log book or some other book or record kept aboard said vessel and available for inspection;

(BB) special attention is paid during the topping off process to the loading rate, the number of tanks open, the danger of air pockets and the inspection of tanks already loading. Notice of the slowdown for topping must be given to offloading vessel personnel; and

(CC) upon completion of loading, all tank valves and loading valves are closed. After draining, hoses shall be disconnected and hose risers blanked.

(5) Vessel transfers while at anchor: No vessel while at anchor shall transfer petroleum products while gale warnings (wind velocity 35 knots or more) are in effect. Vessel to vessel transfers may only be carried on in anchorage areas designated by the Coastal Resources Management Council. The transfer of fuel for a vessel's own use may take place outside the designated anchorage area, but in no case during gale warnings.

(6) Spillage during transfer: Transfer shall cease if a discharge of oil to the waters of the State occurs during such transfer. Transfer may be resumed when in the judgment of the Coastal Resources Management Council's representative, after consultation if necessary with the United States Coast Guard or local authority, adequate steps have been taken to control the spill and to prevent further spillage.

(7) Scuppers: No person shall transfer or cause to be transferred or consent to the transfer of any bulk oil from one oil carrying vessel to another oil carrying vessel unless the scuppers of any such vessel are plugged watertight during the oil transfer. However, it will be permissible to remove scupper plugs as necessary to allow runoff of water provided a vessel crew member stands watch to re-close the scuppers in case of an oil spill.

(8) Illumination: No person shall transfer or cause to be transferred or consent to the transfer of any bulk oil after dark from one oil carrying vessel to another oil carrying vessel unless both vessels are adequately illuminated.

(9) Open hatch transfer: Transfer of oil by means of a hose through an open hatch is prohibited. An exception will be

made only when an emergency arises, and this is the only means of moving flammable oil from one vessel compartment to another, or of unloading the vessel for the purpose of reducing or preventing pollution, or for preventing foundering and then only when all possible precautions to prevent discharge to the waters of the state have been taken.

(10) Sample collection: No person shall transfer in bulk nor cause to be transferred from any vessel to another vessel any petroleum product known as residual lube oils or middle distillate fuel until they have taken or cause to be taken a composite sample of such product of not less than one pint from such vessel. Such sample shall be labeled in a fashion prescribed by the Coastal Resources Management Council and retained by said person for use by the Coastal Resources Management Council for a period of not less than sixty (60) days.

(11) Reports and notification. The Council shall be notified at least 12 hours in advance of any transfer of bulk oil from one vessel to another. Should unusual circumstances make it impossible to provide 12 hour notice, the operator shall notify the Council as soon as possible. Notification is not required for transfer of oil for a vessel's own use. The report shall include:

(AA) names of vessels;

(BB) approximate amount of oil to be transferred;

(CC) product type; and

(DD) expected time and date of vessels arrivals.

(12) Oil spill reporting procedure: In the event of any overboard discharge during vessel to vessel transfer, the person, firm or corporation responsible for the discharge shall immediately undertake to remove such discharge. Responsibility for removal shall remain with the person, firm or corporation responsible for the illegal discharge. For this purpose, the owner shall have readily available adequate essential equipment approved by the Council for the containment and removal of such a discharge, sufficient personnel to deploy and the use of such equipment. In addition to the existing procedures, the following actions are necessary. An initial telephone report of any discharge to the

waters of the State shall be made to the Council or Council's representative as soon as practicable but within two hours. The report shall include:

(AA) time of discharge;

(BB) location of discharge;

(CC) type and amount of oil;

(DD) assistance required;

(EE) name and telephone number of person making report;

(FF) other pertinent information; and

(GG) a telephone report shall also be made to the National Response Center at 1-800-424-8802.

(13) Second telephone report: A second telephone report shall be made as soon as adequate information is available but not more than eight hours after the first report. The report shall include:

(AA) success of containment procedures;

(BB) actions for removal and success of removal;

(CC) estimate of area affected by such discharge;

(DD) assistance required; and

(EE) other pertinent information.

(14) After removal of such discharge has been completed, the operator shall prepare a complete written report of the occurrence and submit such a report to the Coastal Resources Management Council within ten (10) days. If circumstances make a complete report impossible, a partial report shall be submitted. This report shall include, but not be limited to, the following information:

(AA) date, time and place of discharge;

(BB) name of permittee, name of owner of vessel or other party(ies) involved;

(CC) amount and type of oil discharged;

(DD) complete description of containment and removal operation including costs of these operations;

(EE) complete description of circumstances causing discharge;

(FF) description and estimate of third party damages;

(GG) procedures, methods and precautions instituted to prevent a similar occurrence from re-occurring;

(HH) recommendations to the Coastal Resources Management Council for changes in regulations or operating procedures;

(II) name and address of any person, firm or corporation suffering damages from the discharge and an estimate of the cost of such damages; and

(JJ) Council telephone number: The Coastal Resources Management Council is available by calling 401-783-3370, or fax number 401-783-3767.

(15) Transfer permit: No person as defined in this section shall transfer or cause to be transferred or consent to the transfer of any oil from one vessel to another, unless said person holds a valid permit issued by the Coastal Resources Management Council and is abiding by all the conditions set forth in these regulations. Said permit shall be requested on such form as the Council shall from time to time so designate and shall contain such information as the Council shall deem necessary. Upon presentation of the completed request for a permit and the payment of the fee per discharge as identified in Chapter 10 of this Title (CRMC Management Procedures), the Council is authorized to issue a valid permit.

(16) Declaration of inspection: A copy of the "Declaration of Inspection" required by the United States Coast Guard shall be in the possession of the operator or his representative and shall be available to the Coastal Resources Management Council representative who shall, on demand, be given the opportunity to satisfy himself that the condition of the vessel is as stated in the "Declaration of Inspection."

(17) Declaration of understanding: A copy of the "Declaration of Understanding" shall be presented by the vessel's pilot to the master of the vessel when the former boards the vessel.

No transfer of oil shall be undertaken until such time as the master of the vessel returns the signed "Declaration of Understanding" to the pilot who shall within five (5) days deliver said "Declaration" to the office of Coastal Resources Management Council. Said "Declaration" shall state that the master of the vessel is knowledgeable of these regulations and agrees to abide by same, and that, further, such transfer shall be supervised by a person competent in the transfer of petroleum products from one vessel to another.

(18) Other: Operators shall also complete such other forms, check lists and reports as the Council from time to time may require.

(19) Bunkering and lightering: Nothing in the foregoing regulations should be construed as to prohibit the function of bunkering vessels or when a demonstrated need is shown, the lightering of vessels at a place other than the area designated in these regulations. Such demonstrated need should be evaluated by the Council who is authorized to set temporary regulations for such procedures.

(20) Designated anchorage areas: The area designated in Narragansett Bay East Passage for vessel-to-vessel transfer of oil is that area south of Gould Island and north of the Newport Bridge bounded by the following coordinates:

(AA) Latitude: 41° 30' 41" North; Longitude: 71° 20' 57" West;

(BB) Latitude: 41° 31' 17" North; Longitude 71° 20' 29" West;

(CC) Latitude: 41° 31' 42" North; Longitude: 71° 21' 05" West; and

(DD) Latitude: 41° 30' 49" North; Longitude: 71° 21' 14" West

d. Policies and regulations for vessel to shore transfer

(1) No person shall transfer nor cause to be transferred from any vessel to a shore installation, any petroleum product known as residual, lube oils or middle distillate fuel until they have taken or cause to be taken a composite sample of such product of not less than one pint from such vessel. Such sample shall be labeled in a fashion prescribed by the Coastal Resources Management Council and retained by

said person for use by the Coastal Resources Management Council for a period of not less than sixty (60) days.

(2) Further, subsequent to the shore transfer of such petroleum product from a vessel to a shore installation, the operator of such shore installation shall obtain or cause to be obtained a shore tank composite sample of such product so transferred and such sample be labeled in a fashion prescribed by Coastal Resources Management Council, and retained by said person for use by the Coastal Resources Management Council for a period of not less than sixty (60) days.

e. Policies and regulations for petroleum bulk storage

(1) The Council finds that shore-front siting of petroleum bulk storage facilities within the confines of existing tank farms is an acceptable use of the state's coastal zone.

(2) The Council shall require permits for such bulk storage facilities and shall require applicants for such permits to meet all evidentiary burdens set forth under the requirements in § 1.3.1(H)(2) of this Part.

(3) Applicants for petroleum bulk storage facilities must consider the projected impacts of climate change, including but not limited to projected storm surge, coastal erosion and sea level rise to these facilities.

(4) Unless there is a demonstrated need, the Council shall not permit expansion of existing tank farms beyond their present bounds, nor shall it permit construction of new petroleum bulk storage facilities in the coastal region.

f. Policies and regulations for the storage and processing of liquefied gases

(1) The Federal Energy Regulatory Commission (FERC) regulates the natural gas industry and has responsibility for the regulation of pipeline, storage, and liquefied natural gas facility siting and construction.

(2) Transfer of liquefied gases from vessels transporting such gases to bulk storage facilities located in the Rhode Island coastal region is subject to United States Coast Guard regulations.

(3) The storage of LNG and LPG may have impacts to Rhode Island's coastal resources and use, and the Council will evaluate and weigh these impacts.

(4) Siting, construction and operation of facilities for the transfer, bulk storage or re- gasification of liquefied gases shall require a Council permit.

(5) Applicants for such a permit shall be required to meet all permit and regulatory requirements set forth under § 1.3.1(H)(2) of this Part, and to further demonstrate by a fair preponderance of evidence that facility siting and operation will be consistent with preservation of the health and safety of nearby populations.

(6) Applicants will have to show by a preponderance of evidence that new or expanded LNG or LPG facilities will not significantly negatively impact existing coastal resources or uses.

(7) It shall be further demonstrated by reliable and probative evidence that:

(AA) all applicable federal, state and local design material and operating regulations, codes or other such requirements will be complied with;

(BB) storage tanks will be constructed of proven materials and will be designed and operated within the design limits of pressure relief and emergency venting systems;

(CC) storage tanks will be sited at sufficient distance from each other and so isolated by terms or containments that accidental release and combustion of gases from one cannot ignite or otherwise damage any other;

(DD) storage tanks will be sited a sufficient distance from any stored corrosive material likely to damage or weaken such tanks. Each tank will be surrounded by a continuous berm or containment of sufficient diameter and height to contain the entire liquid contents of such tank;

(EE) any pipeline for the transfer of liquefied gas into or from such a facility or on the premises of such a facility will be provided with dikes or berms capable of containing the largest spill that might occur if such

pipeline was ruptured and before it could be drained or shutdown;

(FF) provision for installation and operation of automatic and continuous monitoring, alarm and shutdown devices must be made;

(GG) provision for independent emergency power to maintain such emergency and essential operating equipment must be made;

(HH) provision for fire protection and firefighting including emergency plans, equipment and personnel must be made;

(II) provisions for spill protection and prevention of ignition must be made; and

(JJ) provisions must be made for LNG or LPG terminal security.

(8) Vaporization of liquid gasses utilizing fresh or marine water sources shall not be permitted unless such water is recycled. Release of process water to the coastal environment shall only be permitted upon demonstration that no significant environmental damage will result.

g. Policies and regulations for the processing of petroleum products

(1) Refer to regulatory requirements in § 1.3.1(H)(2) of this Part.

I. Dredging and dredged material disposal (formerly § 300.9)

1. Policies

a. 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.

b. Where beneficial re-use options as set forth in R.I. Gen. Laws § 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.

c. 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.

d. 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 §1.3.1(B) of this Part;

(2) the proposal complies with all applicable local zoning ordinances;

(3) applicable soil erosion and sediment controls are employed (see §1.3.1(B) of this Part; and

(4) the proposal meets the standards of §1.1.6(E) of this Part.

e. 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 §§ 1.1.4(E) and 1.3.1(I) of this Part as applicable.

f. 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.

g. The Council may require performance assurance bonds for projects that utilize in-water disposal or transit federal channels with loaded scows.

2. Prerequisites: R.I. Gen. Laws § 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.

a. 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 complement 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.

~~b. 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.~~

~~c~~b. 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~~.

~~d~~c. Any application for open water disposal of dredged materials shall obtain a suitability determination from the Army Corps of Engineers.

~~e~~d. All applicable requirements of the Freshwater Wetlands Act have or will have been met.

~~f~~e. Upland disposal of dredged materials must comply with all applicable local zoning ordinances.

~~g~~f. 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.

~~h~~g. For dredge volumes greater than 10,000 cubic yards, a pre-application meeting ~~is~~ may be required as determined by the CRMC.

3. Prohibitions

a. 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 § 1.2.2(D) of this Part.

b. 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 § 1.2.1(B) of this Part.

c. 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.

4. Additional Category B requirements

a. Applicants for all dredging projects shall provide accurate soundings in the area of the proposed dredging operation.

b. 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.

c. 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.

d. 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.

e. Applicants for improvement dredging projects shall describe, on the basis of competent professional analysis, anticipated siltation rates, sediment sources, and anticipated maintenance dredging needs.

f. 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.

g. 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.

5. 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.

a. All materials to be dredged for either open water disposal or upland disposal must be classified by the Department of Environmental Management (DEM). Applicants for dredging or open water disposal of dredged materials shall also be required to obtain a dredging permit (which contains the Section 401 Clean Water Act Water Quality Certification) from the DEM.

~~a~~b. For dredging:

(1) Bottoms of dredged areas shall slope downward into the waterway so as to maximize tidal flushing.

(2) Bottom slopes at the edges of dredged areas shall have a maximum slope of 50 percent.

(3) Dredging shall be planned so as to avoid undermining adjacent shoreline protection facilities and/or coastal features.

(4) Shellfish dredged from waters classified SB or lower shall not be made available for human consumption or bait.

(5) 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.

~~b~~c. For dredged materials disposal in open water:

(1) Dredged materials may not be placed in areas determined by the CRMC to be prime fishing grounds.

(2) Measures must be employed and described to ensure that all dredged materials will be dumped solely within the confines of an approved site.

(3) 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.

(4) 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.

(5) The applicant ~~shall~~ may be required by the Executive Director to 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.

d. For dredged materials disposal into confined aquatic disposal (CAD) cells:

(1) All scows utilized for disposal of material into CAD cells shall be bottom dump design and in good working condition with all seals intact and functional. All scows shall be required to be inspected and approved by the CRMC prior to undertaking any CAD cell disposal operation.

(2) No debris shall be disposed within the CAD cell. All debris generated by dredging operations shall be removed from all dredge material and legally disposed of in accordance with state and federal regulations.

(3) The applicant shall have a dredge quality management (DQM) system installed on the disposal scow. Such system is not required to be certified by the Army Corps of Engineers, but shall include at a minimum position, draft, door open and door closed for all dumping operations. Electronic access shall be available to the CRMC at all times during dredge and disposal operations. The CRMC shall halt all dredging activities if the scow and door positions are not working and visible on the DQM interface that was approved for the project.

(4) All applicants shall pay the current CAD cell disposal fee established by § 10-00-1.4.6(A)(23) of this Title (CRMC Management Procedures).

(5) Following acceptance by CRMC of the pre-dredge survey all dumping into the CAD cell shall be at the location(s) shown

on the CRMC dump plan provided to the applicant and contractor. If disposal occurs outside of the CRMC designated locations dredging may be halted until a resolution for the misplacement of material is determined.

(6) Any disposal that occurs outside of the CAD cell limits will result in an immediate halting of dredging operations and the applicant shall be required to remove improperly dumped material from the bottom. Such activity will result in the maximum fine available to the CRMC for each day the improperly dumped material is on the bottom.

~~d~~e. For dredged materials disposal in the creation of wetlands, aquatic habitat, or island:

(1) 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.

(2) Dredged materials must be pumped or placed into a containment area that will permit sediment consolidation and prevent erosion.

(3) 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.

(4) All applicable requirements of § 1.3.1(B) of this Part shall be met.

~~e~~f. For upland disposal:

(1) Dewatering of dredged materials shall occur within a properly designed dewatering facility.

(2) 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.

(3) Where dredged materials are placed behind a wall or bulkhead:

(AA) the structure shall be suitably engineered to resist the pressures of the dredged material;

(BB) the material, including fines, shall be prevented from seeping through the wall or bulkhead by the placement of an adequate filtering device; and

(CC) all applicable standards listed for shoreline protection facilities in § 1.3.1(G) of this Part shall be met.

(4) All applicable requirements of § 1.3.1(B) of this Part shall be met.

~~e~~g. Disposal for beach nourishment:

(1) 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.

(2) 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 down-drift side of the inlet.

(3) All applicable requirements of § 1.3.1(B) of this Part shall be met.

J. Filling in tidal waters (formerly § 300.10)

1. Policies

a. It is the Council's policy to discourage and minimize the filling of coastal waters.

b. Filling which is determined by the Council to be incidental to activities conducted in accordance with § 1.3.1(G) of this Part is not "filling in tidal waters" and is addressed by the policies, prerequisites, prohibitions, requirements, and standards contained in § 1.3.1(G) of this Part. (Note: this text is from definition moved to § 1.1.2, however, this portion is policy.)

~~b~~c. 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).

~~c~~d. 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 § 1.3.1(G) of this Part.

~~d~~e. It is the Council's policy to require a public access plan, in accordance with § 1.3.6 of this Part, as part of any application for filling of tidal waters. In accordance with § 1.1.7 of this Part, 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.

~~e~~f. In accordance with R.I. Gen. Laws §§ 46-23-6(4)(iii) 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.

g. Filling which is determined by the Council to be incidental to activities conducted in accordance with § Section 1.3.1(G) of this Part is not "filling in tidal waters" and is addressed by the policies, prerequisites, prohibitions, requirements, and standards contained in § Section 1.3.1(G) of this Part. (Note: this text is from definition of "filling in tidal waters" (now in § 1.1.2), but is policy, so placed here)

2. Prerequisites

a. Except for federal consistency reviews, applicants for projects requiring filling in tidal waters shall be required to obtain a Section 401 (Clean Water Act 33 U.S.C. §§ 1251–1387) 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.

b. 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.

3. Prohibitions

a. Filling in Type 1 and 2 waters is prohibited.

b. Regulations governing the filling and other disturbances to wetlands are set forth in § 1.2.2(D) of this Part.

c. Filling in Type 3, 4, 5, and 6 waters is prohibited unless:

(1) the filling is made to accommodate a designated priority use for that water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and

(3) the filling is the minimum necessary to support the priority use.

4. Fees

a. ~~See § 1.1.10 of this Part.~~ A fee for filling in tidal waters shall be based on the criteria specified in § 1.1.12 of this Part.

K. Aquaculture (formerly § 300.11)

1. Policies

a. 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.

b. 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.

c. 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~~. However, ~~The~~ 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.

d. 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.

e. 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 R.I. Gen. Laws § 20-10-3 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~~ the applicant is not seeking any amendments or modifications 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.

f. 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 (e.g., the purchase of seed and supplies and/or proof of sales). Three (3) consecutive years of no proof of sales shall be grounds for revocation of the Assent and lease. The

Council may allow the Assent and lease to remain in effect for inactive aquaculture upon a showing by the Assent holder for good cause.

g. The Council may grant an aquaculture Assent for a period not to exceed that period set forth in R.I. Gen. Laws § 20-10-3.

h. 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.

(1) This prohibition shall not apply to the activities ~~like~~ of a seed nursery or 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 § 1.3.1(D) of this Part), or to projects which are designed, with Council approval, to enhance and restore the public resource.

(2) Aquaculture projects other than shellfish aquaculture proposed for ~~not-approved areas~~ conditionally approved waters that are not closed seasonally and prohibited waters that do not contain significant shellfish stocks potentially available for relay into approved areas for free and common fishery 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~~ Such activities shall be prohibited unless the applicant provides a written statement~~s~~ from the director~~s~~ of the department~~s~~ of ~~environmental management and~~ health certifying that the proposed activity ~~is consistent with the requirements of the National Shellfish Sanitation Program~~will not result in product that is a public health or safety concern.

(3) ~~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.~~Authorization may be granted by the Council for activities prohibited by this subsection provided the operation is for research purposes or public enhancement of the resource and 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 NSSP.

i. When the Council issues an authorization for aquaculture all wild shellfish stock, crustaceans, seaweed, and whelks existing within the authorized area shall remain the property of the state.

j. 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. (Note: Moved from Prerequisite – this is policy)

k. 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; and

(4) all applicable Rhode Island Department of Environmental Management and Rhode Island Department of Health Regulations are followed. (Note: Moved from Prerequisite; this is policy)

l. A CRMC assent may be issued for upweller units at CRMC permitted residential docks 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. (Note: Moved from Prerequisite; this is a policy)

2. Prerequisites

a. 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 R.I. Gen. Laws § 20-10-5. 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 including, but not limited to:

(1) marine life adjacent to the proposed area and the waters of the state, and

(2) the continued vitality of indigenous fisheries.

(AA) 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.

~~b. 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.~~ (Note: This is not a Prerequisite, as the DEM license is now issued after a CRMC Assent is issued – moved to Standards)

b. 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.~~

c. 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.

d. At the time of filing a preliminary determination (PD), the applicant shall include a DRAFT operational plan that includes the following information:

(1) name of the applicant and the company's name;

(2) contact information for applicant and/or company;

(3) description of the design and activities of the aquaculture facility;

(4) map depicting the specific location and boundaries of the aquaculture lease and facility, including the latitude and longitude points for each boundary point;

(5) types and locations of structures (rafts, pens, tanks, etc.);

(6) species to be cultured and source of these organisms (i.e., wild or cultured);

(7) expected level of activity (seasonally, weekly and daily);

(8) procedures to prevent contamination, program of sanitation and maintenance, description of the water source including details of water treatment, program to maintain water quality, maintenance of records; and

(9) how shell stock will be harvested.

(AA) The DRAFT operational plan may be modified during the PD review process and serve as the basis for the operational plan required below under § 1.3.1(K)(3)(b) of this Part.

e. 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.

f. 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.

g. 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~~review by the department of environmental management to determine if a RIPDES permit is required. Said permit must be obtained by the applicant prior to any aquaculture facility discharges to waters of the state.

h. ~~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,~~ Aat the time of application, the applicant must provide an operational plan that details methods and record keeping to ensure ~~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.

~~i. Upweller units at CRMC permitted residential docks, piers and floats may be reviewed as a Category A activity provided that:~~ (Note: moved to policy section.)

~~(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.~~

~~j. 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.~~(Note: First sentence moved to policy; the second sentence is already in prohibition section.)

~~k~~i. 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 CRMC and the RIDEM with the advice and consent of the Bio-Security Board in accordance with R.I. Gen. Laws § 20-10-1.2 prior to issuance of an assent. This review can occur concurrently with the aquaculture application process.

~~l~~j. All freshwater aquaculture permits will be reviewed ~~and approved~~ by and receive consent from the CRMC Biosecurity Board prior to issuance of an assent. This review can occur concurrently with the aquaculture application process.

3. Additional Category B Requirements

a. Applicants proposing to undertake any aquaculture project shall:

(1) Describe the location and size of the area proposed;

(2) Identify the species to be managed or cultivated within the permitted area and over which the applicant shall have exclusive right;

(3) Describe the method or manner of management or cultivation to be utilized, including whether the activities proposed are experimental, commercial, or for personal use; and

(4) Provide such other information as may be necessary for the Council to determine:

(AA) the compatibility of the proposal with other existing and potential uses of the area and areas contiguous to it, including navigation, recreation, and fisheries;

(BB) the degree of exclusivity required for aquacultural activities on the proposed site;

(CC) the safety and security of equipment, including appropriate marking of the equipment and/or lease area;

(DD) 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;~~

(~~5~~EE) the cumulative impact of a particular aquaculture proposal in an area, in addition to other aquaculture operations already in place;

(~~EE~~FF) the capability of the applicant to carry out the proposed activities; and

(~~FF~~GG) the impact of the proposed activities on the scenic qualities of the area.

b. Operational plan - In accordance with the permitting requirements set forth herein, the aquaculturist must submit a written operational plan as part of their Category B Assent application to be reviewed and approved by CRMC and DEM and maintained on file with the CRMC. Operational plans will be made available for review and inspection by CRMC, DEM and the U.S. Food and Drug

Administration. The operational plan must be updated and resubmitted prior to any change(s) occurring in the aquaculture operation. Aquaculture must be practiced only in strict compliance with the provisions of the approved operational plan. At a minimum, each operational plan must include the following information:

(1) description of the design and activities of the aquaculture facility;

(2) specific location and boundaries of the aquaculture lease and facility;

(3) types and locations of structures (rafts, pens, tanks, etc.);

(4) species to be cultured and source of these organisms (i.e., wild or cultured);

(5) expected level of activity (seasonally, weekly and daily);

(6) procedures to prevent contamination, program of sanitation and maintenance, description of the water source including details of water treatment, program to maintain water quality, maintenance of records, and

(7) how shell stock will be harvested.

4. Prohibitions

a. Fish pen aquaculture operations are prohibited in all coastal ponds and nutrient sensitive shallow embayments and coves.

b. 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.

c. Upwellers at existing residential docks, piers, or floats in Type 1 waters are prohibited.

d. 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~~advice and consent by the CRMC Bio-Security Board and approval by the RIDEM Director before any permit is issued. Any proposed modifications to the permitted operation will be reviewed by the Bio-Security Board and the RIDEM Director 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.

e. The harvest of wild bivalve molluscan shellfish, other than spat collection, naturally occurring in a CRMC permitted lease ~~shall be~~is 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.

f. In the coastal salt ponds the area occupied by commercial aquaculture shall not exceed five percent (5%) of the total open water surface area of the coastal pond below MLW.

g. Proposed aquaculture leases may not be sited where eelgrass (*Zostera marina*) or widgeon grass (*Ruppia maritima*) exists.

5. Standards

a. Marine aquaculture within tidal waters

(1) 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.

(2) 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 libel to all fines and penalties under law.

(3) 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.

(4) The aquaculturist must notify CRMC of every shipment of aquatic plants and animals for culture entering this state at least five (5) working days prior to entry into the state and each shipment must be accompanied by a certificate of disease inspection from a recognized laboratory appropriate to the species received. A copy of the certificate of disease inspection must be provided to the CRMC. Prior to shipment the CRMC shall notify DEM Enforcement and DEM Division of Fish & Wildlife of the shipment.

(5) Shellfish seed cultured in prohibited or conditionally approved waters may be transferred, by the aquaculturist, to an approved aquaculture lease in Approved waters in accordance with the terms of an approved operational plan, and with notification to CRMC. If more than 10 percent of the cultured shellfish within a lot or batch exceed the definition of seed (any quahogs that exceed 20 mm, and any oysters that exceed 32 mm), they cannot be moved from other than approved waters to an approved growing area without prior permission of the DEM Director and the Department of Health.

(6) All aquaculturists desiring to use seed that have been cultured in prohibited or conditionally approved waters must include in the operational plan to CRMC details on how he/she intends to track and document the growth and harvest of these shellfish. All aquaculturists must maintain accurate and complete records of all shellfish seed culture in prohibited or conditionally approved waters and removal of such shellfish seed to approved waters including, but not limited to, source, numbers transferred, size composition, time/dates of transfer, harvest and sale of the shellfish. These records must be maintained for a minimum of two years and must be available for inspection by agents of the CRMC, DOH, DEM Division of Law Enforcement, or DEM Division of Fish and Wildlife upon request. If record keeping and tracking protocols are inadequate, then the aquaculturist must only use seed from approved waters. No shellfish may be harvested until they have spent at least six (6) months in approved waters.

(7) Any permitted aquaculturist shall only harvest those species from the lease area as specifically authorized by the CRMC Assent. (Moved from Policy section)

(8) 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 prior to beginning any aquaculture activities. The aquaculturist, upon receiving the DEM aquaculture license, shall file a copy of same with the CRMC within 30-days of receipt of said DEM license. (Note: Any aquaculturist desiring to be a RI shellfish dealer must obtain the requisite license(s) from DEM and the RI Department of Health.)

(49) 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.

(510) 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.

(11) Permittees must demonstrate that they are fully utilizing an existing lease area to be eligible for an expansion as part of a preliminary determination application.

(12) For the area known as upper Narragansett Bay defined as the area north of latitude of 41 degrees 35 minutes, proposed aquaculture farms shall be limited to a maximum size of three (3) acres. Leases may be granted by authorizing an initial two (2) acre lease. Subsequently, the third acre may be granted when the Permittee demonstrates that the initial two (2) acre lease is being fully utilized.

(613) Experimental permits.

(AA) 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.

(BB) 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.

(~~7~~14) Commercial viability permit.

(AA) 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:

(i) 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.

(ii) 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.

(iii) The permitee 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 permitee must terminate the operation.

(iv) The permitee must show that, in the case of a successful trial, there is sufficient 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 permitee 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 and included with the annual report that must be filed with the CRMC

(15) Education/research permit. The Executive Director may issue an 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.

(~~10~~16) Aquaculture operations shall be located at sites and operated in such a manner as to not obstruct public access to and from tidal waters.

(~~11~~17) Any new lease in a coastal salt pond shall be limited in size as follows:

(AA) a maximum three (3) acres for ~~traditional rack and bag or cage~~ methods using gear including, but not limited to, racks, bags, and floating cages; or

(BB) a maximum of ~~six (6)~~ ten (10) acres for bottom planting.

(~~12~~18) Leaseholder may not apply for any lease expansion until such time leaseholder can demonstrate to the CRMC a need for additional area.

(~~13~~19) Recreational permits. The Executive Director may grant permits for recreational culture of shellfish by littoral landowners as follows:

(AA) Recreational permits shall be limited to ~~one culture enclosure limited to~~ a combined total volume of 48 cubic feet;

(BB) This cage(s) shall be hung from an existing CRMC approved dock in a manner that it will not interfere with traditional navigation;

(CC) Recreational permit holders ~~will~~ shall follow all existing seed importation regulations;

(DD) Recreational permit holders ~~will be~~are required to complete a CRMC approved aquaculture educational program;

~~(EE) Recreational permits will be exempt from prohibition #6~~(Note: prohibition 1.3.1(K)(4)(f) now specifies commercial activity only, thus this standard is unnecessary);

(~~FF~~EE) All gear used under an education permit will be legibly marked with the letters "CRMC" and the CRMC permit number; and

(~~GG~~FF) Recreational permits will be only in areas of approved waters as defined by the National Shellfish Sanitation Program.

(~~14~~20) 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.

b. Freshwater aquaculture

(1) 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.

(2) Permits for land-based aquaculture operations shall be granted by the CRMC for a term not to exceed 50 years.

(3) 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.

~~6. 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.~~

~~a. Marine aquaculture lease size in Narragansett Bay.~~

~~(1) 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.~~

~~(2) 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~~ (Note: 1.3.1(K)(6)(a)(1) and (2) are now combined and moved to § 1.3.1(K)(5)(a)(12) of this Part)

~~(3) These guidelines may be adjusted for variations in water depth, species cultured, culture method, etc.~~

~~b. Guidelines for Marine Aquaculture in the Salt Ponds.~~

~~(1) Aquaculture leases will be discouraged in historically fished areas and encouraged in areas that have not been historically utilized in the wild harvest fishery.~~

~~(2) Buffer zones between aquaculture leases may be required when considering new leases.~~

L. Coastal wetland mitigation (formerly § 300.12)

1. Policies

a. In cases where the Council determines that a coastal wetland may be altered (see § 1.2.2(D) of this Part), or grants a special exception to a prohibition listed in § 1.3.1(L) of this Part, 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.

b. The Council shall not grant any variance to the policies, standards, and prerequisites set forth in this section.

c. 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 § 1.3.1(L)(5) of this Part.

d. Wetlands created or restored for the purposes of replacing permanently lost or altered coastal wetlands shall be considered wetlands as defined in § 1.1.2 of this Part and subject to the policies contained in §§ 1.2.2(D), 1.1.8 and 1.1.10 of this Part.

e. Activities which shall be exempt from mitigation requirements include, but shall not be limited to; minor disturbances associated with the approved construction or repair of shoreline protection facilities in accordance with § 1.3.1(G) of this Part, minor disturbances associated with approved residential docks and walkways constructed in accordance with standards set forth in § 1.3.1(D) of this Part , insignificant or minor cutting or pruning of vegetation in accordance with a Council-approved management or restoration plan; and approved mosquito population control programs. In addition, wetlands created for the purposes of stormwater management, erosion control, or waste management, in accordance with § 1.3.1(F), shall not be subject to mitigation requirements.

f. 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 § 1.3.1(L)(4) of this Part, the applicant shall be required to first meet the burdens of proof contained in § 1.1.8 of this Part 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.

g. 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.

h. To the maximum extent practicable, mitigation projects shall be carried out prior to, or concurrent with, the approved alteration of the coastal wetland.

i. 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 onsite 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.

j. In cases where the alteration is temporary, the disturbed wetland shall be restored, to the satisfaction of the Council, immediately following the permitted activity.

k. In no case shall monetary compensation be considered as an acceptable form of mitigation.

l. 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.

m. 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 § 1.3.1(L)(5) of this Part shall be considered minimum requirements.

n. 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.

o. Any violation of the approved mitigation plan shall constitute a violation of the assent to alter the existing coastal wetland.

p. 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.

2. Prerequisites

a. Applicants proposing any alteration to coastal wetlands prohibited in § 1.3.1(L)(3) of this Part shall be required to obtain a special exception from the Council (see § 1.1.8 of this Part).

b. 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.

c. 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.

3. Prohibitions

a. 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 and alterations resulting from approved mosquito population control programs.

b. 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 with:

(1) residential docks approved pursuant to the standards set forth in § 1.3.1(D) of this Part;

(2) approved construction or repair of shoreline protection facilities; and

(3) approved mosquito population control programs.

c. 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:

(1) the alteration is made to accommodate a designated priority use for that water area;

(2) the applicant has examined all reasonable alternatives and the Council has determined that the selected alternative is the most reasonable; and

(3) only the minimum alteration necessary to support the priority use is made.

d. The practice of applying broad spectrum persistent pesticides on any coastal wetland area is prohibited.

e. 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.

4. Additional Category B requirements

a. Applicants shall demonstrate to the Council's satisfaction that:

(1) the proposed alteration will accommodate a priority use, as determined by the adjacent water type;

(2) the alternative selected is the most reasonable for supporting that priority use; and

(3) the proposed alteration is the minimum necessary to support that alteration.

b. Any mitigation plan submitted pursuant to this section shall include, but not be limited to, the following:

(1) A site plan accurately depicting wetlands which will be altered, the proposed mitigation site, existing buffer zones and proposed buffer zones;

(2) 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;

(3) 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;

(4) 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;

(5) A description of any excavation, grading, filling, etc. to be conducted as part of the mitigation plan;

(6) 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;

(7) A schedule for implementation of the mitigation plan;

(8) Success criteria, which shall include benchmark dates and minimum survivability rates for plantings/seedings;

(9) A monitoring program; and,

(10) Evidence of financial security.

5. Standards

a. For alterations to coastal wetlands:

(1) Altered coastal wetlands shall be replaced by wetlands of a similar type (as defined in § 1.1.2 of this Part) which provide an ecological value equal to or greater than that of the altered wetland.

(2) The following ratios of replacement coastal wetland to permanently altered or lost coastal wetland shall be considered minimum compensation requirements for mitigation projects:

(AA) 2:1, area of coastal wetland restored: area permanently altered or lost or

(BB) 2:1, area of coastal wetland created: area permanently lost or altered.

(3) 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.

(4) Restored and created coastal wetlands shall be subject to buffer zone and setback requirements.

b. For mosquito population control

(1) 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).

(2) 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.

(3) Ditches shall be no more than 24 inches wide and not less one foot, or more than 3 feet, deep.

M. Public roadways, bridges, parking lots, railroad lines and airports (formerly § 300.13)

1. Policies

a. 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 § 1.3.1(C) of this Part. 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 § 1.3.1(F) of this Part (excluded from these requirements are projects consisting only of pavement resurfacing, minor roadway repairs, or emergency drainage repairs).

b. All roadways, highways, parking lots, railroads lines, and airports shall be planned, sited, and designed to:

(1) protect areas that provide important water quality benefits or are particularly susceptible to erosion and sediment loss;

(2) limit land disturbances such as clearing and grading and cut and fill to reduce erosion and sediment loss;

(3) limit disturbances of natural drainage features and vegetation; and

(4) limit the increase of impervious surface areas, except where necessary.

c. 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.

2. Prohibitions

a. The construction of new public transportation facilities in tidal waters and on coastal features is prohibited with the following exceptions:

(1) construction on developed barrier beaches may be permitted, subject to the requirements of § 1.2.2(C) of this Part;

(2) unpaved vehicle trails and parking areas may be permitted on undeveloped barrier beaches (see § 1.2.2(C) of this Part); and

(3) construction may be permitted on manmade shorelines subject to the requirements of §1.2.2(G) of this Part.

3. Standards

a. See standards given in "Filling, removing, or grading of shoreline features" (§ 1.3.1(B) of this Part).

b. Permeable materials shall be utilized, where practicable, to surface roadways and parking lots on shoreline features adjacent to Type 1, 2, and 3 waters.

c. 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 § 1.3.1(B) of this Part.

d. Applicants shall prepare and implement a stormwater management plan in accordance with the policies and standards contained in § 1.3.1(F) of this Part.

e. See the standards contained in "Treatment of sewage and stormwater" (§ 1.3.1(F) of this Part).

N. Maintenance of structures (formerly § 300.14)

1. Policies

a. Persons proposing to maintain dredged channels and mooring areas (see § 1.3.1(I) of this Part) and mosquito control ditches in coastal wetlands (see § 1.3.1(L) of this Part) are in all cases required to obtain a new Council Assent.

b. 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.

c. Persons proposing to maintain or repair structural shoreline protection facilities shall do so in a manner consistent with § 1.3.1(G) of this Part.

d. 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.

e. 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.

(1) Persons proposing to: demolish structures; repair structures which have been physically destroyed 50 percent or more as a result of storm induced flooding, wave, or wind damage; and 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.

(2) 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.

(3) 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 for 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.

f. All activities, except those noted above in § 1.3.1(N)(1)(e) of this Part, for which a Certification of Maintenance is requested, shall have a valid Council Assent.

g. 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 § 1.2.1(B) of this Part. 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.

h. 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.

i. See Table 9 in § 1.3.1(N) of this Part for maintenance provisions for dwelling additions and rebuilds within the 50 foot setback zone on developed, moderately developed, and undeveloped barriers.

j. The Executive Director may require an inspection and analysis as detailed in the CRMC "Guidelines for Fitness of Purpose Investigations and Certifications" if the maintenance history of a commercial marine facility indicates a lack of maintenance activities or the facility appears to have a use that exceeds that of the original Assent or the use is different from what was originally authorized.

2. Prerequisites

a. 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.

3. Table 9: Dwelling rebuilds and additions for maintenance activities under § 1.3.1(N) of this Part

<table>
<tr><td colspan="3">Dunes: Existing structures</td><td rowspan="4">Moderately Developed and Undeveloped Barriers*</td></tr>
<tr><td colspan="3">Developed Barriers</td></tr>
<tr><td colspan="3">All structural alterations other than Maintenance will be required to:

Move beyond the 50 foot setback area and meet RI state building code requirements</td></tr>
<tr><td>Structural alteration</td><td>Within 50 foot setback</td><td>Landward of 50 foot setback</td></tr>
</table>

Cantilever decks	Allowed: maximum 25 square feet at a minimum of 8 feet above grade (in 50 foot setback area only)	Allowed	Prohibited*
Decks on roofs	Allowed: provided maximum 100 square feet 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 2. Other	 Prohibited Prohibited	Allowed provided RI state building code and all other RICRMP requirements are met	 Prohibited* Prohibited
If foundation IS FEMA compliant and 1. Rebuild In-kind 2. Add 2nd floor 3. Demolition and add 2nd floor 4. Other	 Allowed (as maintenance, 1) Prohibited Prohibited Prohibited	Allowed provided RI State Building Code and all other RICRMP requirements are met.	 Allowed* Prohibited 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 § 1.3.1(N) of this Part. 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 CRMP requirements.

O. Municipal harbor regulations (formerly § 300.15)

1. Additional Category B Requirements

a. All municipalities ~~proposing to adopt~~ seeking to issue mooring permits pursuant to R.I. Gen. Laws § 46-4 shall prepare a draft harbor management plan to include harbor rules, regulations, or programs and 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~~ guidance in establishing harbor rules, regulations or programs.

b. When a city or town enacts a police ordinance under R.I. Gen. Laws § 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.

c. The Executive Director is authorized to approve, administratively, municipal harbor regulations and ordinances for an interim period of one (1) year, provided:

(1) 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;

(2) 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

(3) 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.

2. Standards (Note: The following standards and prohibitions come from the CRMC Guidelines for the Development of Municipal Harbor Management Plans and are now being codified as regulations within the Red Book.)

a. Siting of mooring areas

(1) All municipal harbor management plans must include the locations of all mooring areas. Coordinates of at least the corner buoys of each mooring area must be obtained, using the Rhode Island Coordinate System 1983 as defined above.

(2) All mooring fields must be shown on a map with each mooring area's respective coordinates. Preferably, the coordinates of each mooring area should also be shown in an appendix of the HMP.

(3) All municipal harbor management plans must show the total area of each mooring area using acres, square feet, or square meters.

(4) Each corner buoy should be referenced to some landmark for common siting purposes for the general and boating publics. The coordinate system points, however, will be the final basis for establishing the location of mooring areas.

(5) Municipalities or other entities proposing to establish mooring areas shall describe them along with the

coordinates for each mooring field using Global Positioning System, Registered Land Surveyor or Professional Engineer and show all detailed features of all mooring areas on a site plan at a scale of 1" = 40' or larger: The coordinates of at least the corner buoys of each mooring area must be obtained and transferred to the RISPCS 1983. All mooring areas surveyed by a registered land surveyor or professional engineer must be stamped by the Rhode Island registered land surveyor or professional engineer. Alternative coordinate systems may be used and included within a HMP as a secondary source consistent with the geographic positions defined and specified by the RISPCS 1983.

b. Mooring field buffers and setbacks

(1) Setbacks and buffer areas are necessary when establishing mooring areas for various reasons, which include, but are not limited to:

(AA) safety in navigation;

(BB) access to and around federal navigation channels, anchorages, turning basins and harbor facilities; and

(CC) access of riparian areas associated with waterfront properties and public rights-of-way sufficient to prevent interference of other harbor activities.

(2) All mooring areas must provide minimum setbacks and\or buffer areas from federal navigation projects, (i.e., channels, anchorages, mooring areas, and/or turning basins) sufficient to prevent interference to these, and other, harbor activities as follows:

(AA) Setback limits from any existing federal, traditional, or proposed navigational channels and fairways, sufficient to prevent interference with navigation.

(BB) Setback limits from shore side structures sufficient to protect ingress and egress from these facilities.

(CC) Setback limits from riparian properties and shoreline public rights-of-way sufficient to prevent interference with the exercise of private or public rights in these areas.

(DD) Buffer areas that provide sufficient protection from interference with access and\or use to designated

shellfish management areas, traditional fishing grounds as defined by the CRMC, and public recreational areas.

(EE) Buffer areas that provide sufficient separation to ensure public safety in swimming areas or other CRMC approved HMP designated special activity areas.

(FF) Buffer areas that provide sufficient separation to protect research reserves, marine protected areas, conservation areas, coastal habitat restoration sites, and submerged aquatic vegetation of concern to CRMC.

c. Water quality - All mooring areas must be sited in order to ensure:

(1) tides and currents will aid in the flushing of new, expanded, or reconfigured mooring areas;

(2) no adverse effects on water quality result from new, expanded, or reconfigured mooring areas; and

(3) adequate, accessible, and operationally maintained pumpout services or facilities are provided.

d. Harbor management plan requirements. The Rhode Island Coordinate System of 1983 shall be used in preparation of all HMPs. The following information is necessary to develop an HMP. Details and guidance in data collection and evaluation is found in the CRMC Guidance for the Development of Municipal Harbor Management Plans:

(1) Physical setting - to include water depths, RIDEM water quality classifications, FEMA flood zones, shoal/dredge areas, and navigational hazards.

(2) CRMC water use designations – to be mapped by CRMC water types and a list of priority uses for each area.

(3) Current uses inventory – to include harbor structures, pump-out facilities, federal navigation areas, moorings, mooring counts, mooring areas, and other use areas, including aquaculture operations, and municipal shoreline zoning districts.

(4) Natural resources areas – to include wildlife conservation areas, recreational and commercial fishing areas, biological

habitats (e.g., submerged aquatic vegetation and coastal wetlands).

e. HMPs shall include public access provisions as follows:

(1) Inventory and catalogue the condition of all CRMC designated rights-of-way in the community, and identify potential rights-of-way for designation by the CRMC;

(2) Establish goals, policies and recommended actions designed to preserve, protect and enhance the existing public rights-of-way to the tidal waters of the town;

(3) Design a maintenance program to be implemented by the community to improve and maintain all municipally owned rights-of-way; and

(4) Develop a prioritized list of CRMC designated rights-of-way that are municipally owned which could be improved by either public or private entities and identify appropriate site improvements required.

f. HMPs shall include water quality provisions as follows:

(1) A program for minimizing the introduction of pollutants, such as harmful cleaners and solvents and anti-fouling paints, into tidal waters from recreational boats and shoreside activities;

(2) Ensure sufficient facilities exist for the safe and sanitary disposal of organic vessel-generated waste. This shall be accomplished by having a comprehensive marina pumpout installation and maintenance plan that takes into account docked and moored vessels;

(3) A program to provide for the disposal of waste oil, plastics, trash, paint, varnish, and other inorganic materials at municipal facilities convenient to recreational boaters;

(4) Promote operation and maintenance measures for marinas and/or the CRMC Clean Marina Program; and

(5) Where significant shallow-water habitat is identified, restrict boating activities as necessary to decrease turbidity and physical destruction of such habitat.

g. HMPs shall include mooring management provisions that:

(1) Develop a resident-to-non-resident mooring allocation policy of no greater than three (3) resident mooring permits to one (1) non-resident mooring permit (3:1 ratio), unless the mooring field is within a federal navigation project, then mooring allocations shall meet the U.S. Army Corps of Engineers requirement of "open to all on a fair and equitable basis";

(2) Include the locations of all mooring areas, total area of each mooring area (acres, square feet or square meters);

(3) Moor all vessels within designated mooring areas, except for riparian moorings. Moorings assigned to riparian property owners will not be included in the total mooring count for designated mooring areas;

(4) Ensure mooring areas are not established, nor any vessel moored or anchored, so as to interfere with the free and unobstructed use of channels, fairways, or shoreside facilities within the harbor. Public mooring areas shall provide, where possible, a 50 foot setback from all residential docks, piers, floats, public launching ramps, federal navigation channels, fairways, anchorages, and/or turning basins. Setback limits from riparian moorings and shoreline public rights-of-way shall be sufficient to allow for ingress and egress and to prevent interference with the exercise of private or public rights in these areas. Mooring areas shall be set back at least three (3) times the U.S. Army Corps of Engineers' authorized project depth from federal navigation projects (e.g., navigation channels and anchorage areas);

(5) Ensure mooring areas and/or moorings dedicated to private commercial uses are not sited in federally maintained project areas;

(6) Ensure that tides and currents aid in the flushing of all new and significantly expanding mooring areas;

(7) Ensure that all new and significantly expanding mooring areas do not cause significant adverse effects on water quality;

(8) Require the prohibition of swimming and water-skiing in all designated channels, fairways, and mooring areas;

(9) Establish procedures for the administration and allocation of mooring spaces by implementing a permit system for use by

all commercial and private mooring holders. Boat owners desiring a mooring shall be required to obtain a permit from the appropriate authority. In the event that all available mooring areas are filled, a waiting list for mooring permit applicants shall be developed by the municipality. The permit system, application process, and waiting list procedures shall be detailed in the Harbor Ordinance section of the harbor management plan.

(10) Do not site mooring areas where they may substantially interfere with access to designated shellfish management areas, traditional fishing grounds as defined by the CRMC, public recreational areas, and conservation areas;

(11) Do not site mooring areas where they may cause significant adverse effects on fish and shellfish resources, wetlands, submerged aquatic vegetation, or other important aquatic habitat areas;

(12) Ensure that mooring fields are serviced by adequate and accessible marine pumpout facilities and dump stations which are maintained in operational condition and regulated through local ordinance;

(13) Develop a mooring allocation policy that limits the transfer of a private mooring permit to an immediate family member (brother, sister, mother, father, spouse, children or grandchildren) to a one (1) time basis and prohibits the mooring permit transferee from subsequently transferring that private mooring permit under any circumstance. All private mooring permits that are forfeited by or not renewed by the transferee shall be made available to individuals on the waiting list; and

(14) Address outhauls (defined in § 1.1.2 of this Part) through local ordinance.

h. HMPs shall include storm preparedness provisions that:

(1) Assess the type and degree of risk that harbor and shoreline users face from natural hazards;

(2) Develop strategies that prepare for, respond to, and recover from natural disasters;

(3) Identify long term mitigation projects that will reduce damage from natural disasters; and

(4) Describe specific steps for coordinated implementation.

3. Prohibitions

a. Mooring field corner buoys shall not be used for the mooring of vessels.

b. Privately managed commercial mooring areas are prohibited within a federal navigation project.

c. New or expanded mooring areas are prohibited within CRMC Type 1 Waters.

d. Maintenance and improvement dredging, recreational mooring areas, commercial operations other than fishing and/or aquaculture, structural shoreline protection facilities, residential boating facilities, marinas, and launching ramps are all prohibited uses in CRMC designated Type 1 waters.

e. Commercial mooring areas, improvement dredging, and marinas are prohibited uses in CRMC designated Type 2 waters.

f. Houseboats or floating businesses are prohibited from mooring or anchoring unless within the boundaries of a CRMC authorized marina.

g. The disposal of untreated boat sewage wastes by any means into coastal waters is prohibited.

P. Boat lift and float lift systems (formerly § 300.16)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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 they 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.~~

~~b. 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.~~

c. ~~Some boat lifts aid in the boarding of a vessel.~~

d. ~~The Council states in § 1.3.5 of this Part 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.~~

e. ~~In accordance with § 1.3.1(D)(2) of this Part, 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.~~

f. ~~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.~~

1. Policies

a. 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

COASTAL RESOURCES MANAGEMENT COUNCIL

SEMI-MONTHLY MEETING

TUESDAY, SEPTEMBER 11, 2018

6:00 P.M.

AGENDA
PART II

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.

b. 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.

2. Prerequisites

a. Boat and float lift applications for Type 2 waters shall be considered Category B applications (see § 1.3.1(A) of this Part).

b. 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 § 1.3.1(D) of this Part.

c. Boat and float lifts (defined in § 1.1.2(a)(18) of this Part) 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 or 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.

d. An application for a Council Assent for a boat and/or float lift will include a plan prepared and stamped by a professional engineer.

3. Prohibitions

a. 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.

b. Boat and float lifts are prohibited in Type 1 waters and in association with existing previously-permitted residential boating facilities in Type 1 waters.

c. 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

d. Lift superstructures such as but not limited to beams and joist-like structures that sit or are fixed atop pilings are prohibited.

e. 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.

4. Standards

a. 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, then mechanical stops limiting the height allowance must be employed.

b. 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.

c. 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.

d. Boat lifts shall be limited to two (2) per residential boating facility.

Q. Wetland walkover structures (formerly § 300.17)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. Physical passage to portions of property suitable for access is sometimes restricted due to the presence of wetland.~~

~~b. Certain types of wetlands are tolerant of minor amounts of foot traffic without incurring significant environmental damage.~~

~~c. 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.~~

~~d. The abundance and diversity of plant and animal life (ref. 1.3.1(A)(1)(e)), 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.~~

~~e. Minor alterations of wetlands associated with wetland walkover structures may be considered appropriate for access upon property when proposed in accordance with this section.~~

1. Policies

a. The abundance and diversity of plant and animal life (reference § 1.3.1(A)(1)(e) of this Part), 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. (Note: this text is from finding above, but represents important policy consideration.)

~~a~~b. 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.

~~b~~c. Wetland walkover structures proposed to extend beyond the limit of emergent vegetative wetlands are considered residential boating facilities as defined at § 1.3.1(D) of this Part.

2. Prerequisites

a. Wetland walkover structure applications in Type 2 waters and in coastal wetlands designated for preservation or restoration shall be considered Category B applications (see § 1.3.1(A) of this Part).

Wetland walkover structures in Type 3, 4, 5, and 6 waters shall be considered Category A* applications.

3. Prohibitions

a. 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.

b. Wetland walkover structures are prohibited in Type 1 waters. Wetland walkover structures are prohibited in Type 2 waters where there are:

(1) wetlands having 10 acres or more of salt marsh habitat in total area;

(2) wetlands determined to have high fish and wildlife habitat value based on staff review; and/or

(3) wetlands which provide high scenic value as determined by the Council. Wetland walkover structures greater than 100 feet in length are prohibited.

c. 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.

d. 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.

4. Standards

a. Wetland walkover structures crossing marshes shall be constructed during the winter dormant season, December 1 through March 15.

b. 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.

c. Maximum width of wetland walkover structures shall be two and one-half (2½) feet.

d. Installation of pilings shall be conducted manually and spaced fifteen (15) feet on center, spanning the wetland if possible.

e. Deck spacing shall be one (1) inch minimum using 5/4" decking material, for light penetration.

f. 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.

g. 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.

h. 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.

i. Wetland walkover structures shall be limited to one (1) per lot of record.

j. See standards in § 1.3.1(B) of this Part - Filling, removing, or grading of shoreline features, as applicable.

k. ~~See Section 300.3, subsections "F. Flood Zone Construction" and "G. Guidelines for Construction in Flood Hazard Zones," as applicable~~Structures shall be adequately designed and anchored to resist displacement by storm surge and wind.

R. Submerged aquatic vegetation and aquatic habitats of particular concern (formerly § 300.18)

~~1. Findings~~ (Findings moved to new CRMP guidance document)

~~a. 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.~~

~~b. 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.~~

~~c. 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.~~

~~d. 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.).~~

e. 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.

f. 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.).

g. 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 1860's, extensive eelgrass beds were present even in the Providence River at the head of the bay. The eelgrass decline during the 1930's 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 1960's.

h. 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 1950's, 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.

i. 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 (§ 1.3.1(C) of this Part), recreational boating facilities (§ 1.3.1(D) of this Part), sewage treatment and stormwater (§ 1.3.1(F) of this Part, dredging and dredged materials disposal (§ 1.3.1(I) of this Part), filling in tidal waters (§ 1.3.1(J) of this Part), aquaculture (§ 1.3.1(K) of this Part), and activities undertaken in accordance with municipal harbor regulations (§ 1.3.1(O) of this Part). 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.

j. 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.

k. 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.

l. 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).

m. 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.~~

~~n. 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.~~

1. Policies

a. 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 § 1.3.1(R)(2) of this Part, 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.

b. Activities under CRMC jurisdiction, including residential, commercial, industrial, and public recreational structures (§ 1.3.1(A) of this Part), recreational boating facilities (§ 1.3.1(D) of this Part), sewage treatment and stormwater (§ 1.3.1(F) of this Part), dredging and dredged materials disposal (§ 1.3.1(I) of this Part), filling in tidal waters (§ 1.3.1(J) of this Part), aquaculture (§ 1.3.1(K) of this Part), and activities undertaken in accordance with municipal harbor

regulations (§ 1.3.1(O) of this Part), shall avoid and minimize impacts to SAV habitat.

c. 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.

d. 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. (Note: this text is from finding above, but represents important policy consideration.)

e. 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. (Note: this text is from finding above, but represents important policy consideration.)

~~d~~f. 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.

~~e~~g. 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.

~~f~~h. 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.

~~g~~i. In tidal waters where applicants propose activities under §§ 1.3.1(C), (D), (F), (I), (J), (K), and (O) of this Part, 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 § 1.3.1(R)(3) of this Part).

~~h~~j. 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.

k. 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. (Note: this text is from finding above, but is a policy.)

2. Prohibitions

a. 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.

b. Floats, and float and platform lifts (including grate-type structures) associated with residential docks are prohibited over SAV as defined herein (See § 1.1.2(a)(161).

c. 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.

d. The long-term docking of vessels at a recreational boating facility shall be prohibited over SAV.

e. 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.

3. Standards

a. For activities under §§ 1.3.1(C), (D), (F), (I), (J), (K), and (O) of this Part, 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.

b. For activities under §§ 1.3.1(C), (D), (F), (I), (J), (K), and (O) of this Part, 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.

c. 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.

d. Where an SAV survey is required, the following ~~guidelines~~ standards are ~~recommended~~required. ~~Where these guidelines are not followed,~~ CRMC staff may require additional information:

(1) 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.

(2) 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 dependent on the size of the project area) running perpendicular to the shoreline 3 meters apart (10 feet). Along each transect line a $1m^2$ 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.

(3) Define a datum. The survey data for SAV shall be mean low water (MLW). MLW shall be set equal to zero.

(4) 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:

(AA) general sediment type (silt, mud, sand, shell, etc.) based on observation or shallow surface core only;

(BB) estimate of percent coverage for each quadrat; and

(CC) estimate the mean shoot length.

(5) 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.

e. Standard design options for the construction of residential boating facilities in areas of SAV habitat.

(1) 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.

(2) Deep-water habitat (see §.1.3.1(R)(1)(c) of this Part) 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 § 1.3.1(R)(4)(b) of this Part). 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.

(3) The maximum length for facilities designed to meet Burdick and Short shall be when a depth of -5 MLW is obtained.

(4) 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 § 1.3.1(R)(4)(c) of this Part).

(5) 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.

(6) Pile driving equipment may not be grounded on SAV during construction.

f. 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.

1.3.2 Alterations to Freshwater Flows to Tidal Waters and Water Bodies and Coastal Ponds (formerly § 310)

A. 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.

B. 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.

C. Standards

1. See standards given in "Filling, Removing, or Grading of Shoreline Features" in § 1.3.1(B) of this Part, as applicable.

2. See standards given in "Construction of Shoreline Protection Facilities" in § 1.3.1(G) of this Part, as applicable.

3. See standards given in "Sewage Treatment and Disposal" in § 1.3.1(F) of this Part, as applicable.

1.3.3 Inland activities and alterations that are subject to Council permitting (formerly § 320)

A. Policies

1. For consistency with state land development legislation, the Council hereby adopts the activities identified by R.I. Gen Laws. § 45-23-27 as applicable for review. (Note: Technical correction, this text is policy and moved from definition section)

2. 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.

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

4. Persons proposing subdivisions, cooperatives, 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 RIGL § 45-23-27 are required to apply for a Council Assent.

5. 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 § 1.3.1(F) of this Part and as described in the most recent version of the Rhode Island Stormwater Design and Installation Manual (250-RICR-150-20-7).

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.D.A. Natural Resources 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 R.I. Natural History Survey and the R.I. Historic Preservation and Heritage 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.

6. 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. Gen. Laws § 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.

7. 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.

8. 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~~ over 40 megawatt~~s capacity)~~;

b. Chemical or petroleum processing, transfer or ~~Petroleum~~ storage facilities (excluding storage facilities of less than 2,400 barrel capacity);

c. ~~Chemical or petroleum processing facilities~~Freshwater wetlands in the vicinity of the coast;

d. Minerals extraction;

e. Sewage treatment and disposal facilities (excluding ~~individual~~ onsite ~~sewage disposal~~wastewater treatment systems);

f. Solid waste disposal facilities; and,

g. Desalination plants. (Note: changes made to be consistent with R.I. Gen. Laws § 46-23-6.)

9. Applicants proposing these activities shall demonstrate in writing that the Additional Category B requirements contained in § 1.3.1(A) of this Part 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.

B. 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 OWTS permit for onsite 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.

C. Additional Category B Requirements

1. Applicants proposing energy related facilities are referred to § 1.3.1(H) of this Part. ~~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 onsite wastewater treatment systems (as defined in the RIDEM regulations for onsite wastewater treatment 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.D.A. Natural Resources 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 R.I. Natural History and the R.I. Historic Preservation and Heritage 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.

3. 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.

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 by permit condition.

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.

D. Standards

1. See standards given in "Filling, removing, or grading" in § 1.3.1(B) of this Part, as applicable.

2. See standards given in "Residential, commercial, industrial, and public recreational structures" in § 1.3.1(C) of this Part, as applicable.

3. See standards given in "Treatment of sewage and stormwater" in § 1.3.1(F) of this Part, as applicable.

1.3.4 Activities located within critical coastal areas (formerly § 325)

~~A. Findings~~ (Findings moved to new CRMP guidance document)

~~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.~~

~~2. 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.~~

A. Policies

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. (Note: this text is from finding above, but represents important policy consideration.)

2. 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. (Note: this text is from finding above, but represents important policy consideration.)

~~1~~3. 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.

~~2~~4. 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 onsite wastewater treatment 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.

f. All roadway construction and upgrading projects; and

g. Development affecting freshwater wetlands in the vicinity of the coast. (Note: these two threshold activities are added to be consistent with regulatory thresholds in Salt Pond and Narrow River SAMPs)

35. Applicants proposing these activities within critical coastal areas are required to apply for a Council Assent.

46. 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 § 1.3.1(F) of this Part.

b. An erosion and sediment control plan prepared in accordance with the standards contained in § 1.3.1(B) of this Part.

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.D.A. Natural Resources 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 R.I Natural History Survey and the R.I Historic Preservation and Heritage 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.

7. 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.

8. Applicable requirements of the RICRMP shall apply unless superseded by the requirements of a special area management plan.

9. 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.

B. Standards

1. See standards given in "Filling, removing, or grading" in § 1.3.1(B) of this Part, as applicable.

2. See standards given in "Residential, commercial, industrial, and public recreational structures" in § 1.3.1(C) of this Part, as applicable.

3. See standards given in "Treatment of sewage and stormwater" in § 1.3.1(F) of this Part, as applicable.

1.3.5 ~~Guidelines~~ Policies for the protection and enhancement of the scenic value of the coastal region (formerly § 330)

A. General ~~guidelines~~policies

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.

1.3.6 Protection and enhancement of public access to the shore (formerly § 335)

~~A. Findings~~ (Findings moved to new CRMP guidance document)

~~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 § 1.3.1(C) of this Part.~~

~~b. New and significant expansions to marinas, as defined in § 1.3.1(D) of this Part.~~

~~c. Activities which involve the filling of tidal waters, as defined in § 1.3.1(J) of this Part, other than those considered as maintenance, as defined in § 1.3.1(G) of this Part.~~

A. Policies

1. 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. (Note: this text is from findings above, but represents important policy consideration.)

~~1~~2. 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~~3. 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~~4. Certain activities which require the private use of public trust resources to the exclusion of other public uses necessarily impact public access. 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. (Note: added text from existing findings above, important policy consideration.)

a. Commercial and industrial development and redevelopment projects, as defined in § 1.3.1(C) of this Part.

b. New and significant expansions to marinas, as defined in § 1.3.1(D) of this Part.

c. Activities which involve the filling of tidal waters, as defined in § 1.3.1(J) of this Part, other than those considered as maintenance, as defined in § 1.3.1(G) of this Part.

~~4~~5. In accordance with § 1.1.7 of this Part, 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~~6. Publicly funded beach nourishment projects shall contain a public access component.

~~6~~7. In accordance with R.I. Gen. Laws § 32-6-5(b), 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.

B. General ~~guidelines~~policies

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.

C. ~~Guidelines~~ Policies 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 cannot 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. Standards for Accessible Design (2010) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

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.

~~1.3.7~~1.4 Federal Consistency (formerly § 400)

A. Introduction

1. The federal consistency requirement, as provided for in section 307 of the Coastal Zone Management Act (CZMA) (16 U.S. Code §§ 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 C.F.R. Part 930). Any changes to the federal regulations supersede those of Rhode Island.

B. Policies

1. Federal agencies proposing an activity must follow the requirements of CZMA §§ 307(c)(1) and (2), 16 U.S.C. §§ 1456 (c)(1) and (2), and 15 C.F.R. 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 § 307(c)(3)(A), 16 U.S.C. §1456(c)(3)(A), and 15 C.F.R. 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 § 307(c)(3)(B), 16 U.S.C. §1456(c)(3)(B) and 15 C.F.R. 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 § 307(d), 16 U.S.C. § 1456(d), and 15 C.F.R. 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.

C. 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.

1.5 Public and Governmental Participation (formerly § 700)

A. Policies and Regulations

1. Public participation is necessary in all phases of program development and implementation. Therefore, it shall be the policy of the Council to promote the participation of federal, state, and local governmental bodies, public and private organizations, and private citizens in the preparation of its plans, programs, policies and regulations.

2. The Council shall cooperate with other governmental agencies in all matters of mutual interest. The Council through its adopted procedures shall ensure a continuous flow of information among agencies in the development of its plans and studies before these are completed and adopted. The Council shall also solicit and consider the opinion of other agencies on any matter before the Council which significantly affects those agencies.

3. The Council shall work with local officials from Rhode Island's municipalities to facilitate the coordination of the Rhode Island Coastal Resources Management Program and local plans.

4. The Council finds that an open, traceable decision making process is essential for an effective coastal management program, and where required should be done in an open transparent public forum. The Council will therefore follow the procedures set forth in the Coastal Resources Management Program, including applicable Special Area Management Plans, for all permit applications which, by regulation come before it.

5. The Council finds that full participation by interested and/or affected groups is essential in the development of Council policies and regulations. The Council finds it can best foster such participation by adopting the following policies:

   a. The Council will provide opportunities for public and governmental input in the development of its policies and regulations.

      (1) The Council and its staff will consult with experts, professionals and interest groups in the preparation of technical reports upon which policies are based.

      (2) Plans and reports upon which policies and regulations are based shall be made available to the public.

(3) The Council shall form advisory committees and hold meetings and workshops to formulate and discuss proposed policies as necessary.

b. The adoption of all policies and regulations by the Council will follow the procedures set forth in the Administrative Procedures Act (R.I. Gen. Laws § 42-35).

6. The Council shall continue to sponsor public education programs, as funding allows. Such programs shall include:

a. publication and widespread distribution of technical reports;

b. exhibits;

c. media releases;

d. quarterly newsletters (Coastal Features);

e. a speaker's bureau;

f. other activities that will foster public awareness; and

g. special programs for senior citizens on coastal awareness, Rhode Island and offshore oil, and seafood consumer education.

7. The Council shall continue to sponsor educational activities for school age children as funding allows. Such activities will include the preparation and dissemination of educational material, supplying speakers to school groups and sponsoring an annual essay contest.

1.6 Maps of Water Use Categories - Watch Hill to Little Compton and Block Island

A. 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.

B. Water Use Category

Type 1 – Conservation areas (§ 1.2.1(A) of this Part)

Type 2 – Low-intensity use (§ 1.2.1(B) of this Part)
Type 3 – High-intensity boating (§ 1.2.1(C) of this Part)
Type 4 – Multipurpose waters (§ 1.2.1(D) of this Part)
Type 5 – Commercial and recreational harbors (§ 1.2.1(E) of this Part)
Type 6 – Industrial waterfronts (§ 1.2.1(F) of this Part)

C. 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.

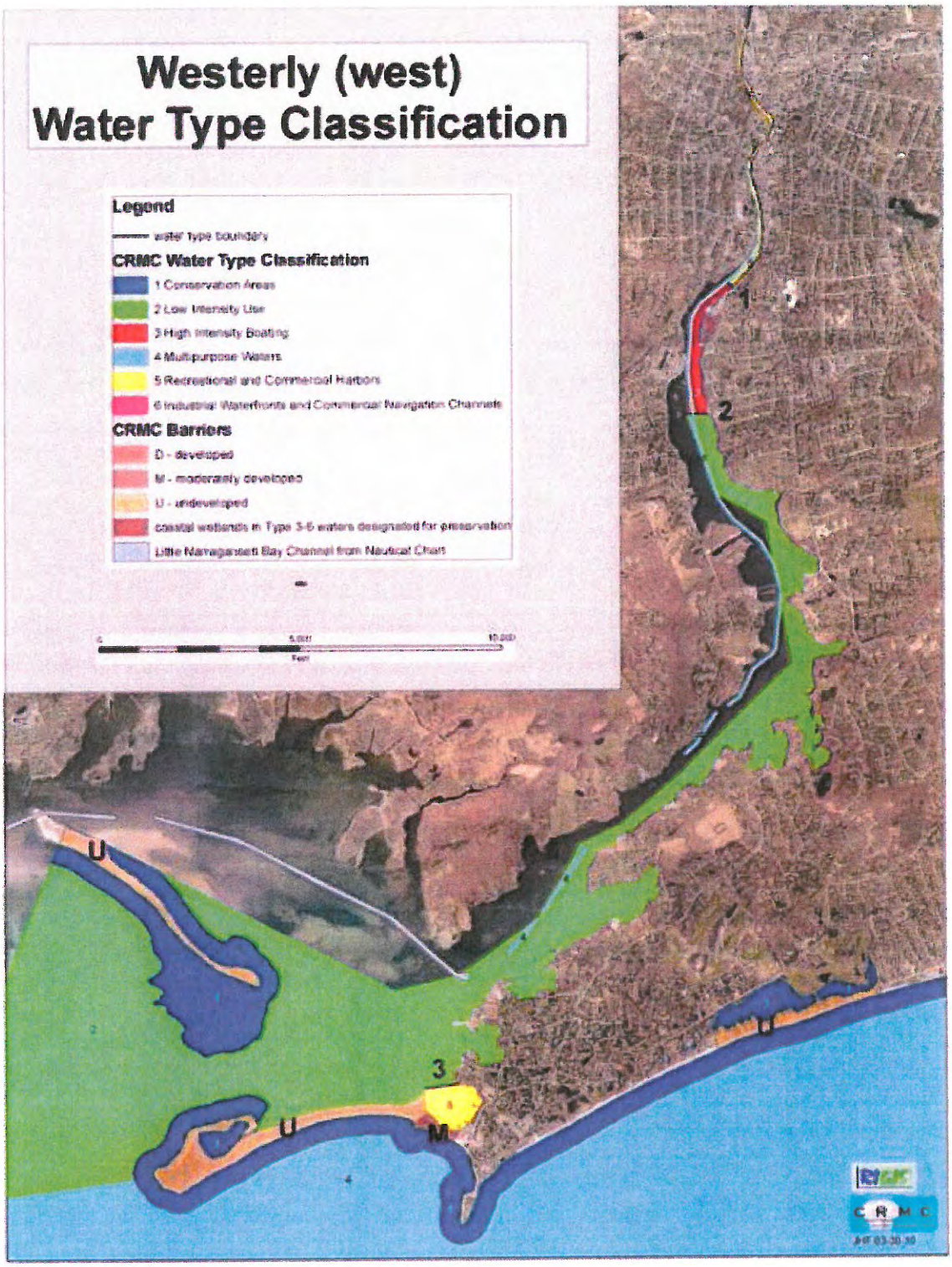
D. The Council's water use category maps are available as PDF files by municipality and GIS shape files will be available for download on the RIGIS website. The maps can be examined at the CRMC office in Wakefield, at the Secretary of State's office or website, and on-line at the CRMC website: http://www.crmc.ri.gov/maps/maps_wateruse.html.

E. 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.

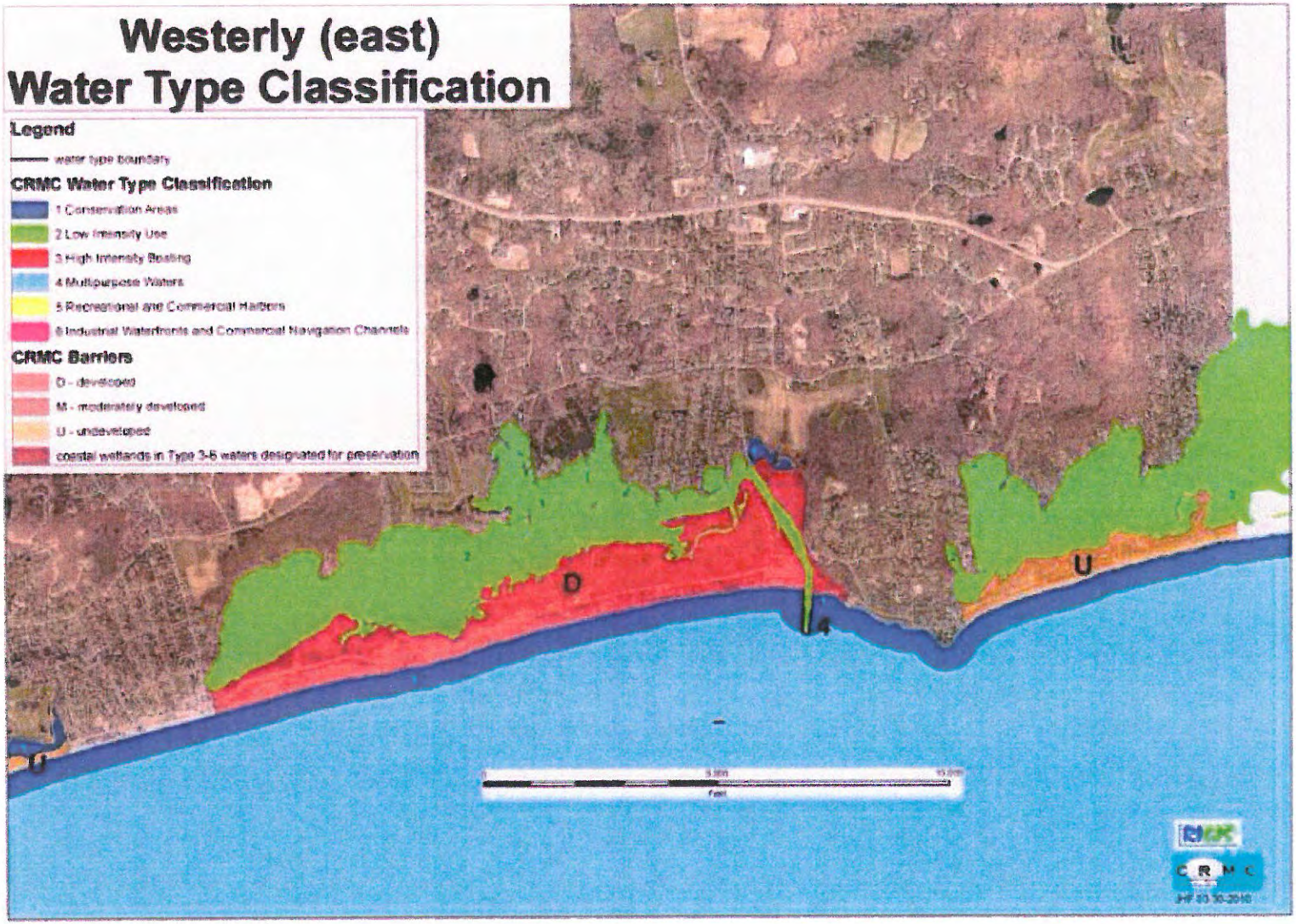
1. Online Maps: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_westerly_west.pdf and http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_westerly_east.pdf

1 2.


Westerly (west)
Water Type Classification
Legend
water type boundary
CRMC Water Type Classification
1 Conservation Areas
2 Low Intensity Use
3 High Intensity Boating
4 Multipurpose 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
Little Narragansett Bay Channel from Nautical Chart
1
2
3
4
U
U
U
M

2
3

3.


Westerly (east)
Water Type Classification
Legend
water type boundary
CRMC Water Type Classification
1 Conservation Areas
2 Low Intensity Use
3 High Intensity Boating
4 Multipurpose 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
D
U
U
U
4
CRMC

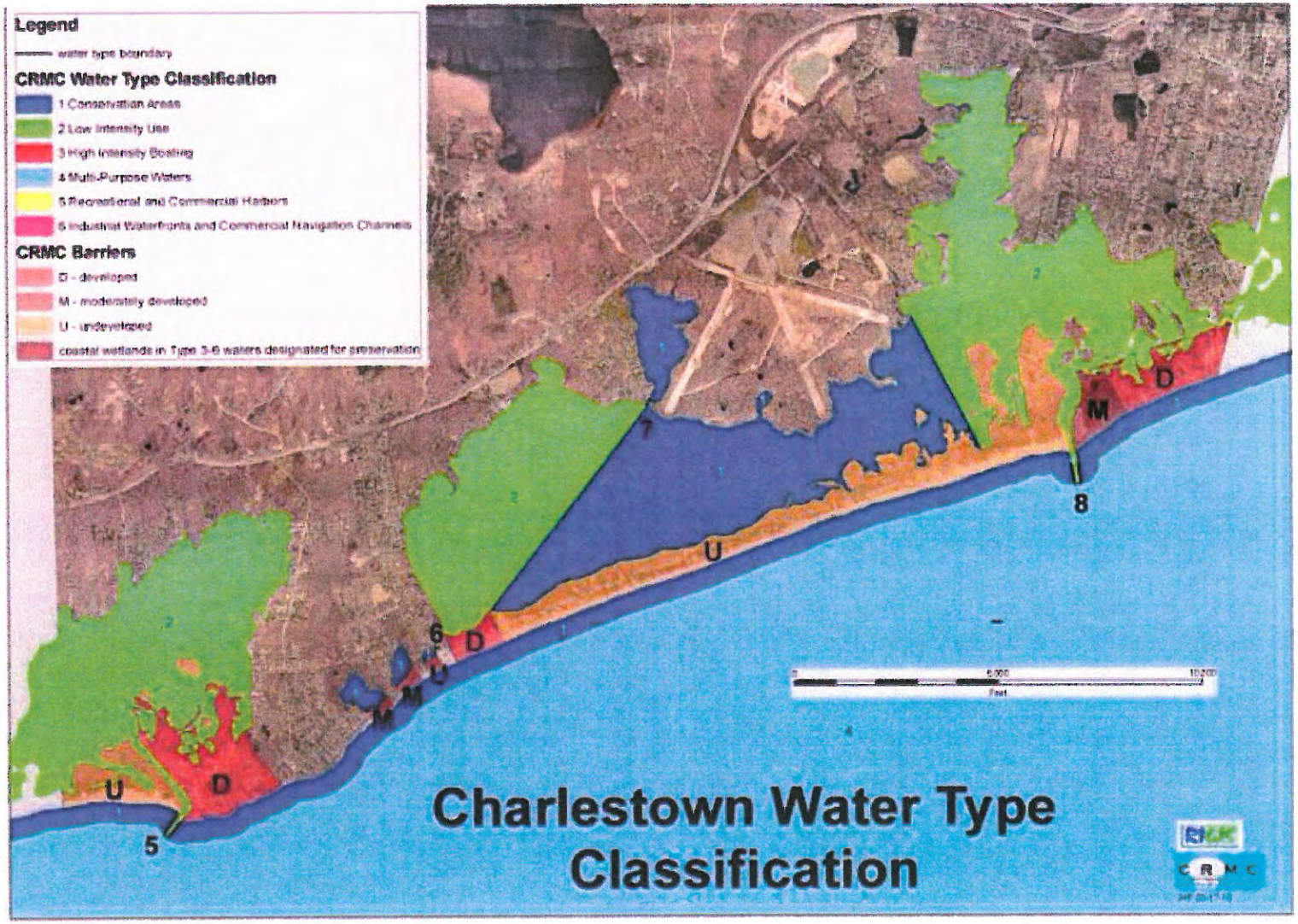
F. Charlestown

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.

1. Ninigret Pond

   a. 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)

2. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_charlestown.pdf


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
Charlestown Water Type Classification

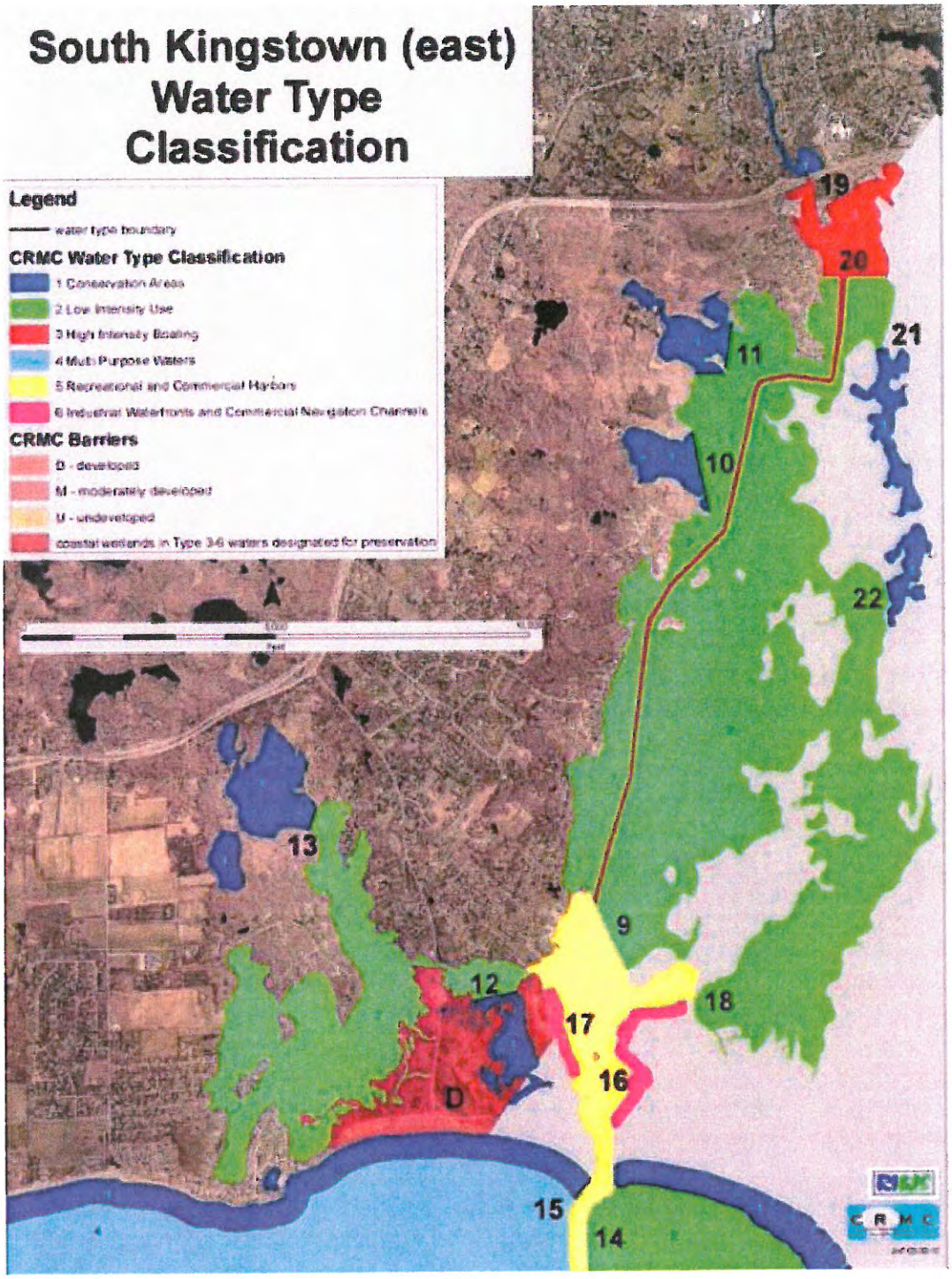
G. South Kingstown

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/ Roberton/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.

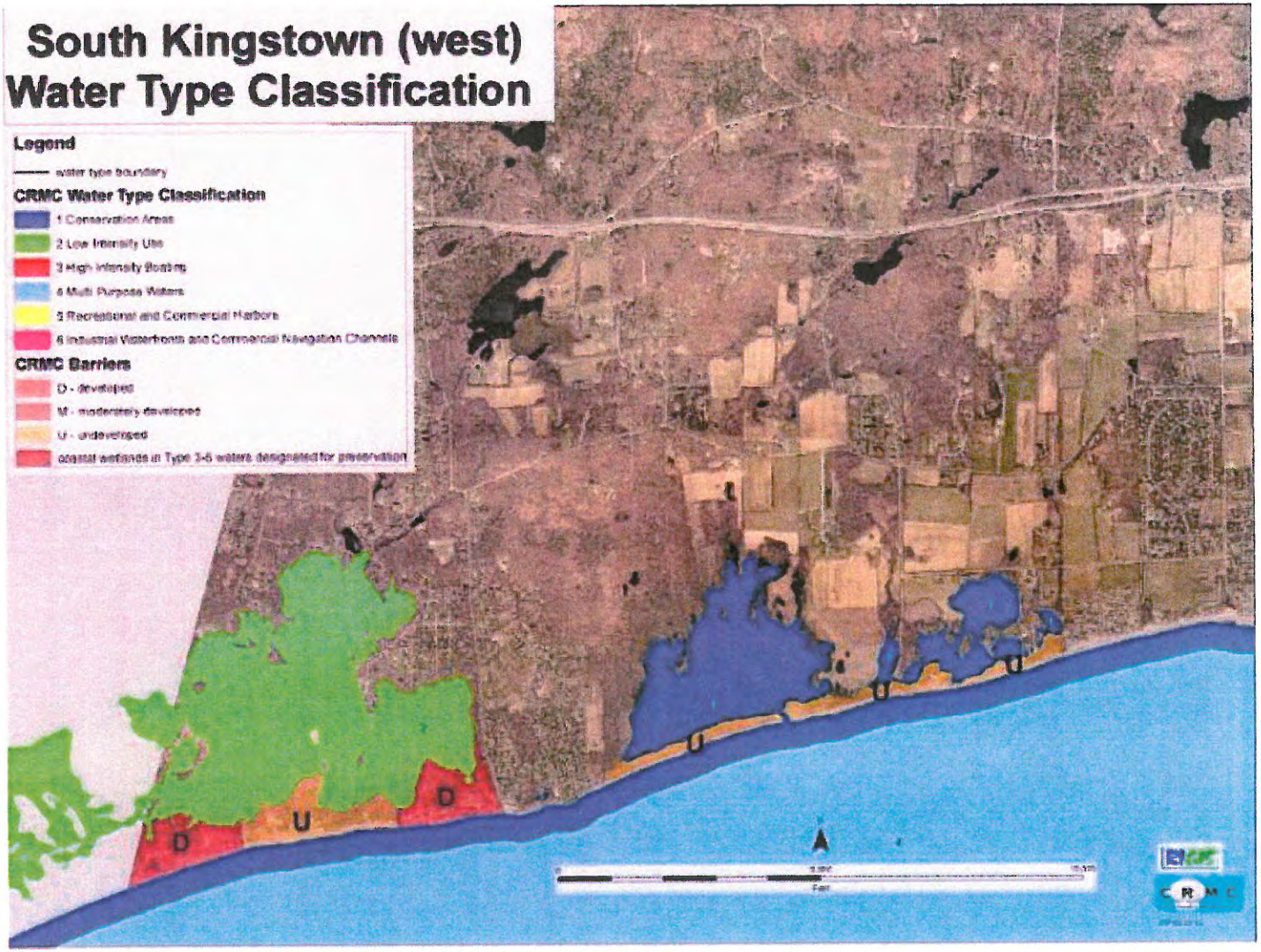
1. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_southkingstown_west.pdf;
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_southkingst

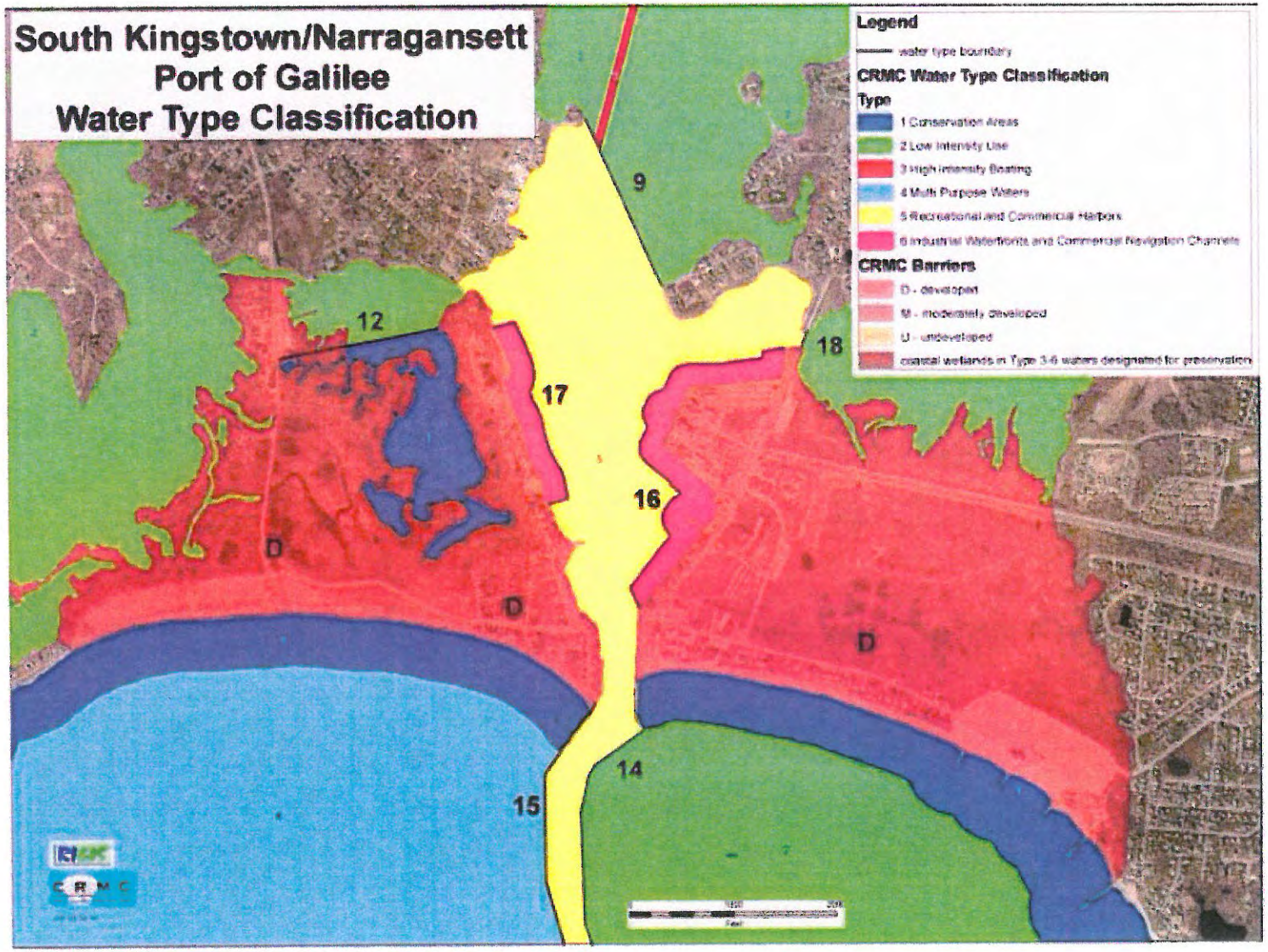
own_east.pdf;
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_southkingstown_galilee.pdf; and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_southkingstown_north.pdf

2.

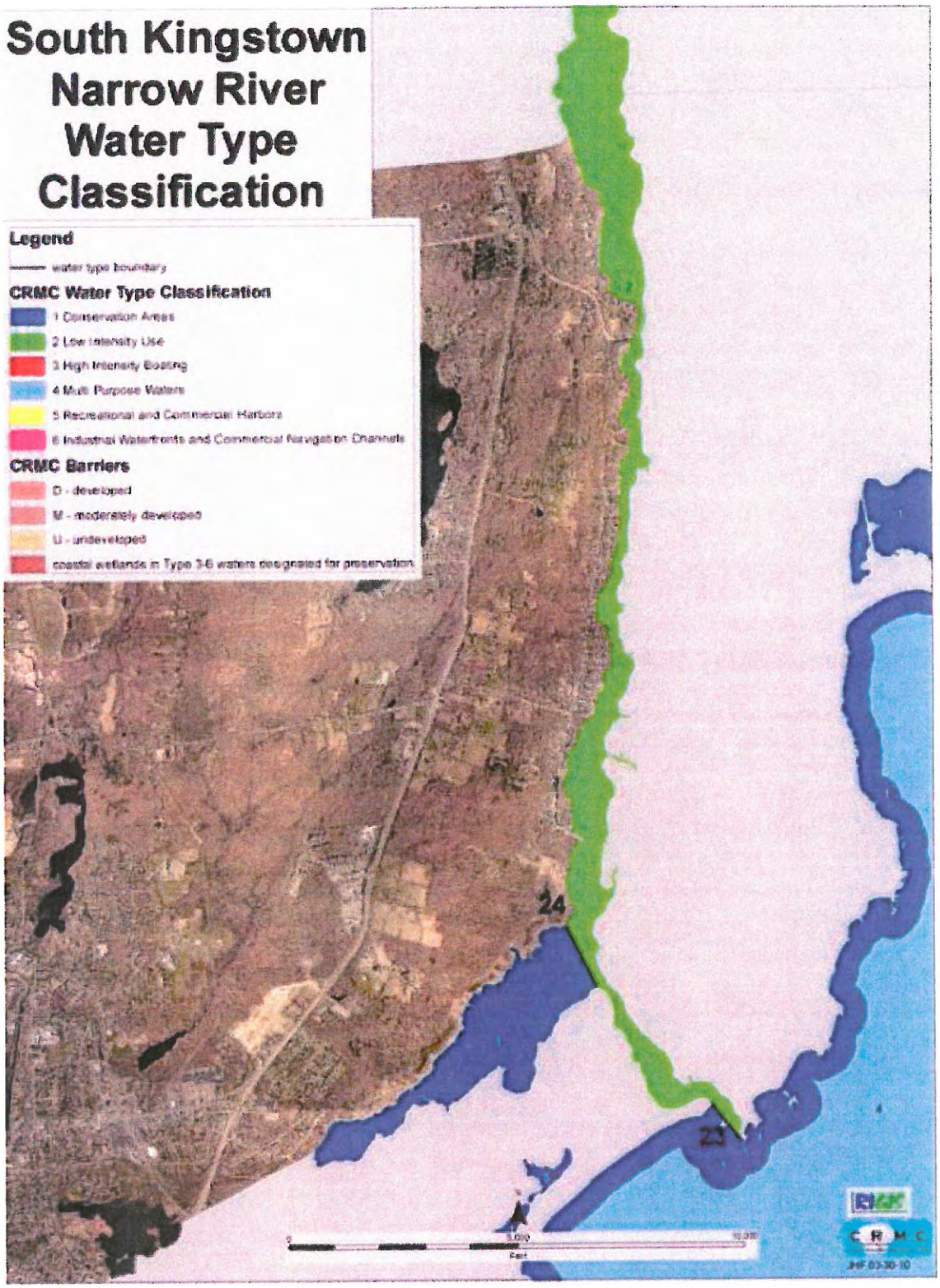

South Kingstown (east)
Water Type
Classification
Legend
water type boundary
CRMC Water Type Classification
1 Conservation Areas
2 Low Intensity Use
3 High Intensity Boating
4 Multi-Purpose Waters
5 Recreational and Commercial Harbors
6 Industrial Waterfronts and Commercial Navigation Channels
CRMC Barriers
D - developed
M - moderately developed
U - undeveloped
coastal wetlands in Type 3-6 waters designated for preservation
19
20
21
11
10
22
13
9
12
18
17
16
D
15
14

3.


South Kingstown (west)
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
D
U
D
U
U
U
U
Feet


South Kingstown/Narragansett
Port of Galilee
Water Type Classification
Legend
water type boundary
CRMC Water Type Classification
Type
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
9
12
17
18
16
D
D
D
14
15

5.


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
24
23
Feet
C R M C

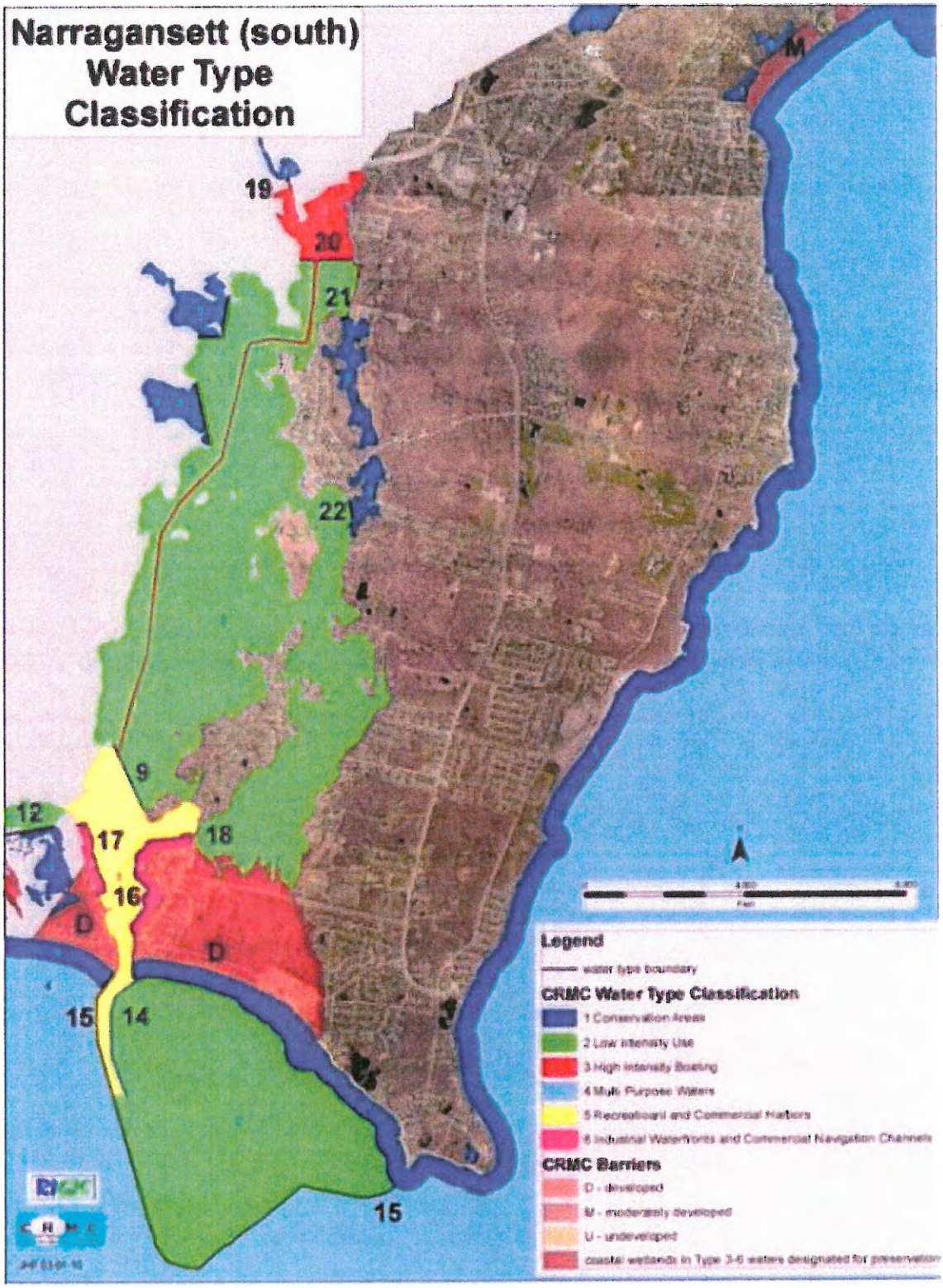
H. Narragansett

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.

1. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_narragansett_south.pdf and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_narragansett_north.pdf

2.


Narragansett (south)
Water Type
Classification
19
20
21
22
M
4
9
12
17
18
16
D
D
15
14
15
Legend
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

3.

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
25
M
D
24
23
M

I. 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

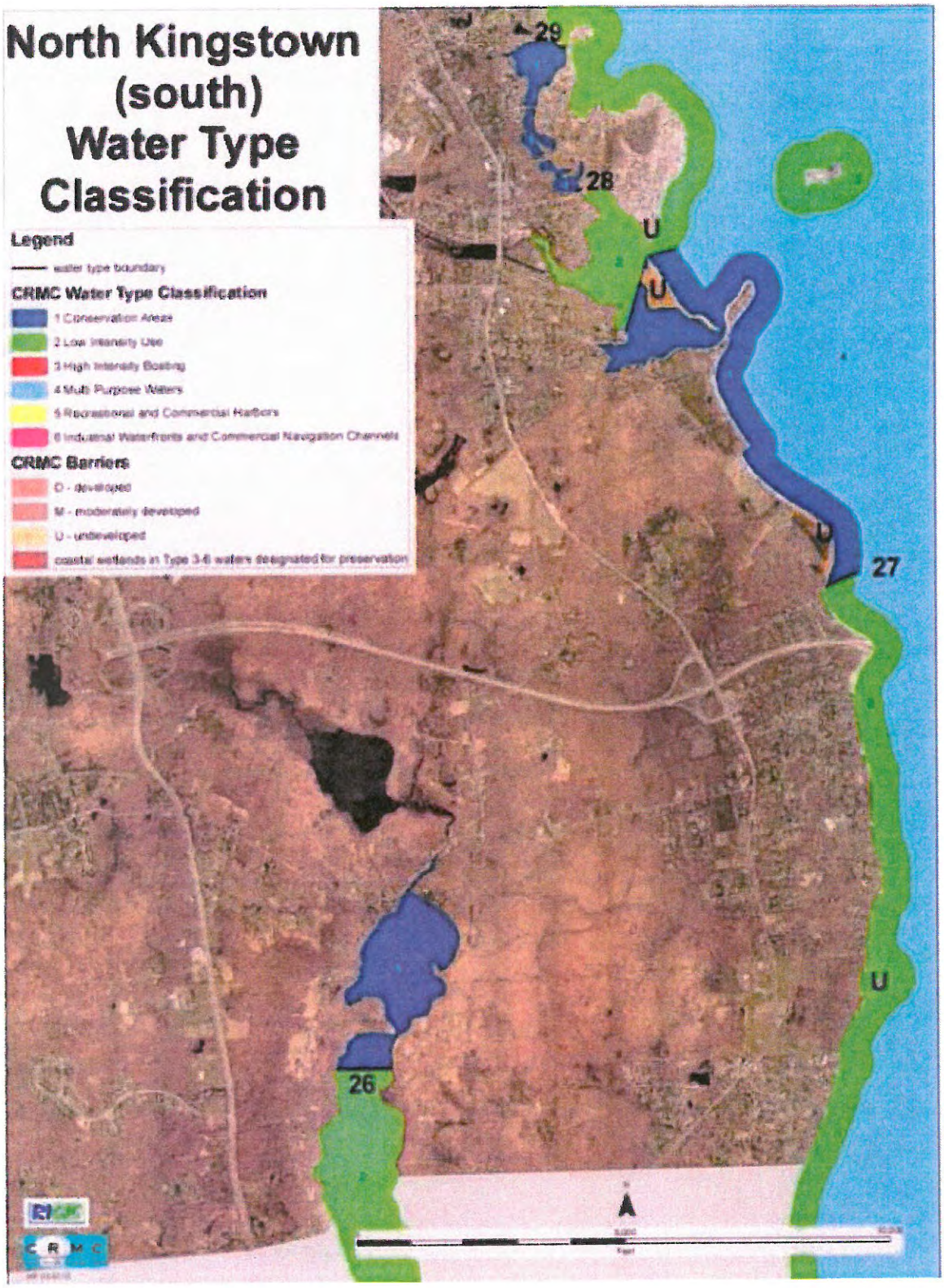
generally easterly and running to a point where it meets the southern side of the Navy channel.
41 - A line along the east bulkhead wall in the small embayment on the south side of the Allen Harbor entrance channel to where it meets the opposite shore.
42 - A straight line from the northern boundary 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.

1. Bissel Cove

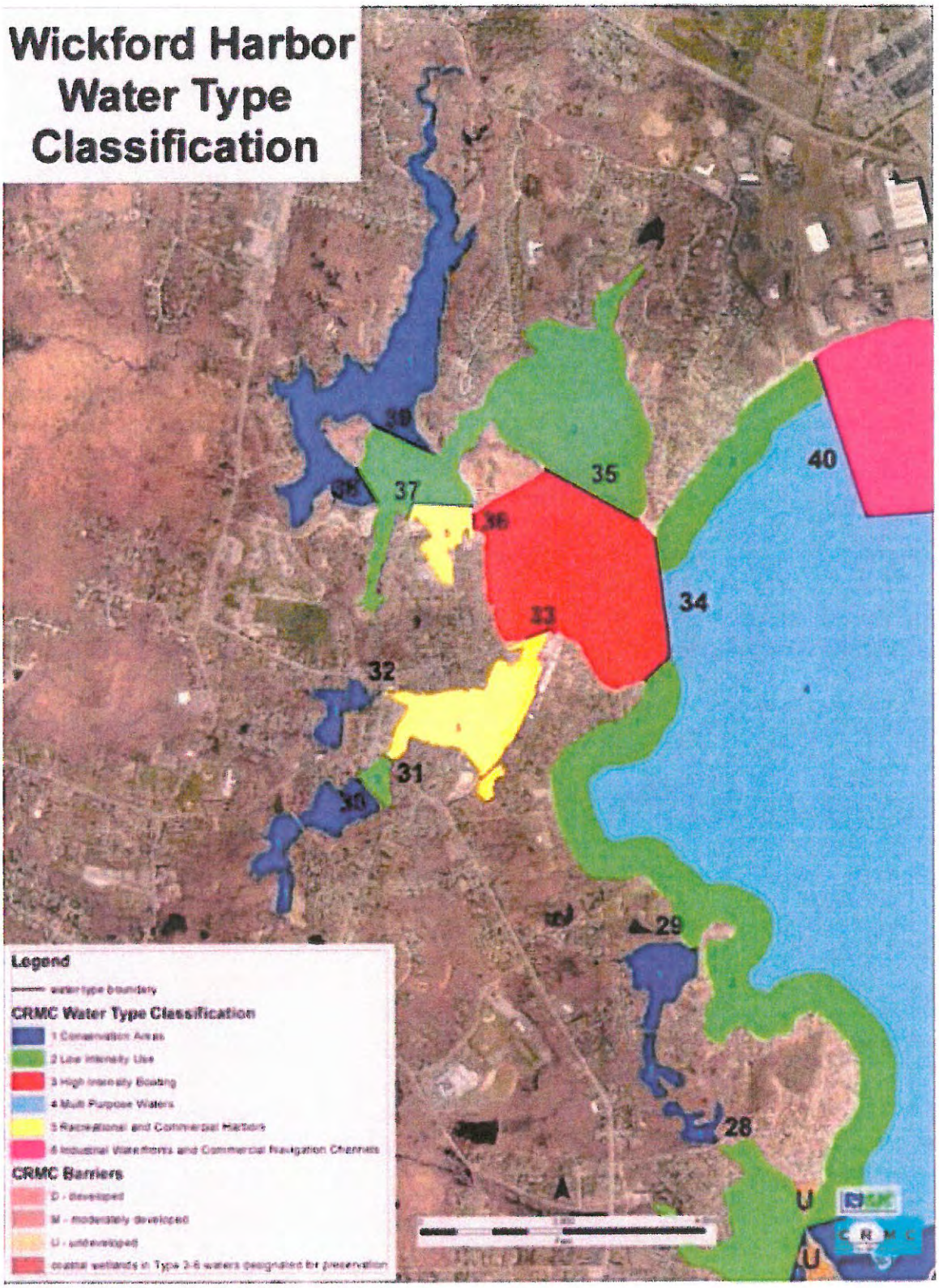
   a. Straight line extension perpendicular to shore at northernmost boundary of Bissel Cove DEM property (from point at approximately 170,087N/347,011E to 170,261N/347,659E RIspf83). Straight line extending from northernmost boundary on western side of Bissel Cove DEM property southwesterly to a shoreline 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)

2. Online Maps:
   http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_northkingstown_south.pdf;
   http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_northkingstown_wickford.pdf and
   http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_northkingstown_north.pdf

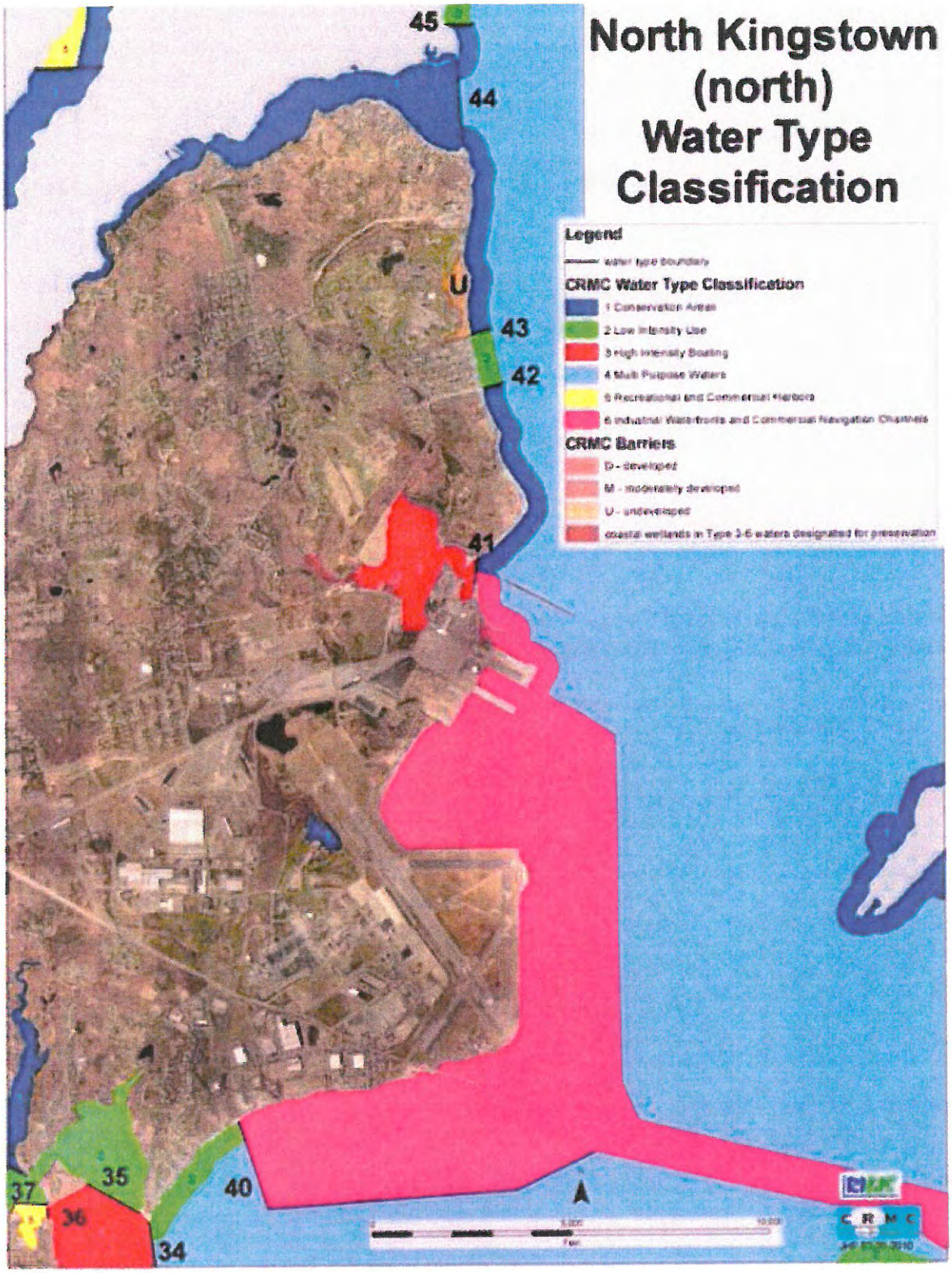
3.


North Kingstown
(south)
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
29
28
27
26
U
U
U
U
N
CRMC

4.


Wickford Harbor
Water Type
Classification
40
35
37
34
32
31
29
28
Legend
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

5.


North Kingstown
(north)
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
45
44
U
43
42
41
40
37
35
36
34

J. 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)

1. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_warwick_greenwichbay.pdf

K. 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.

1. Within Line 53 (Warwick Cove) – adopted by the Council on October 26, 2004

   a. Type 2 Waters

      (1) (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.

      (2) (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 southwesterly 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.

(3) (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.

2. Within Line 51 (Apponaug Cove) – adopted by the Council on October 26, 2004

a. Type 1 Waters

(1) (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.

b. Type 2 Waters

(1) (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.

(2) (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.

(3) (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.

c. Type 5 Waters

(1) (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.

3. Baker's Creek

a. Type 1 Waters

(1) 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)

4. Chepiwanoxet Point and Greenwich Cove

a. Type 1 Waters

(1) 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)

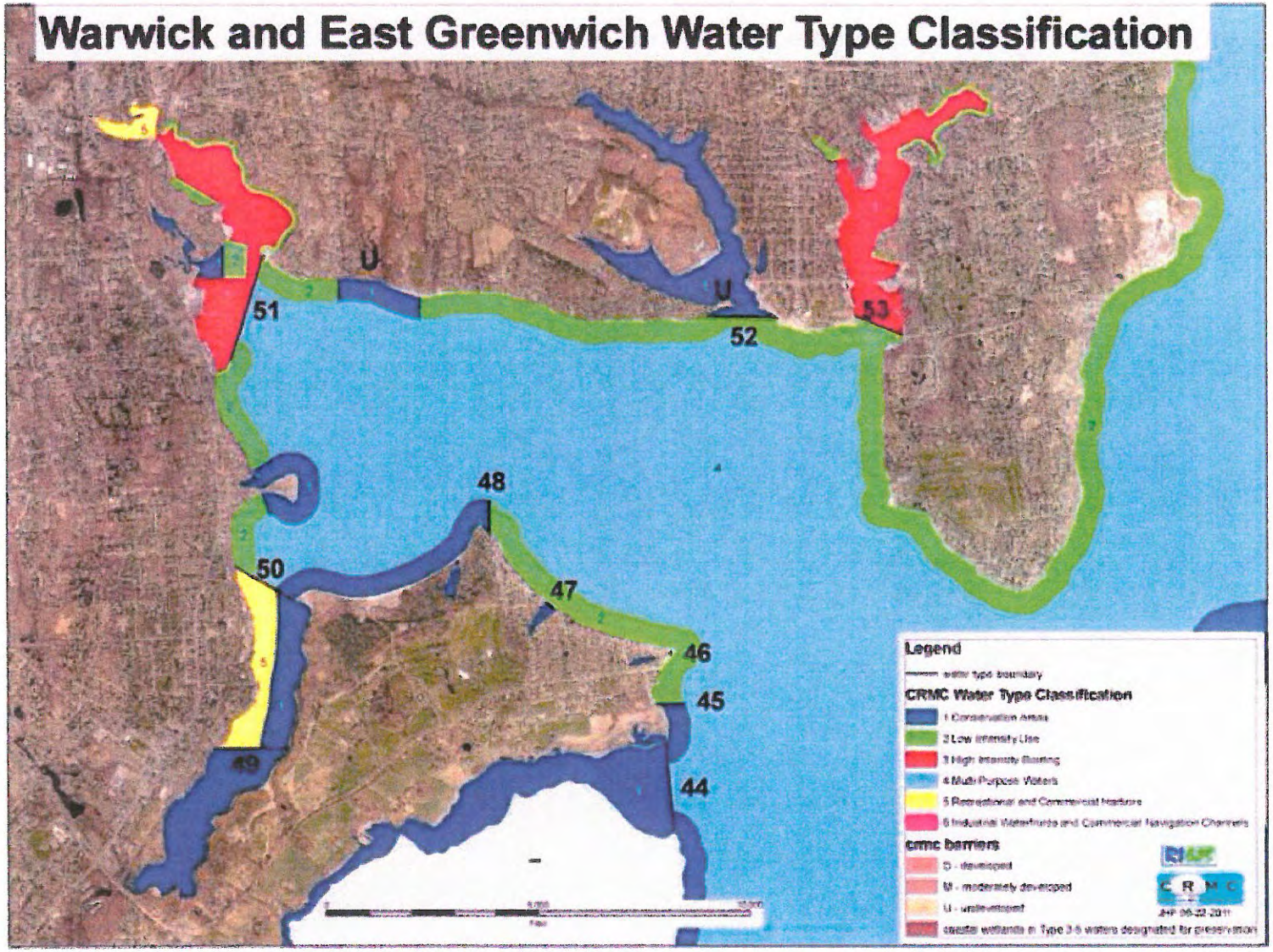
b. Type 2 Waters

(1) 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)

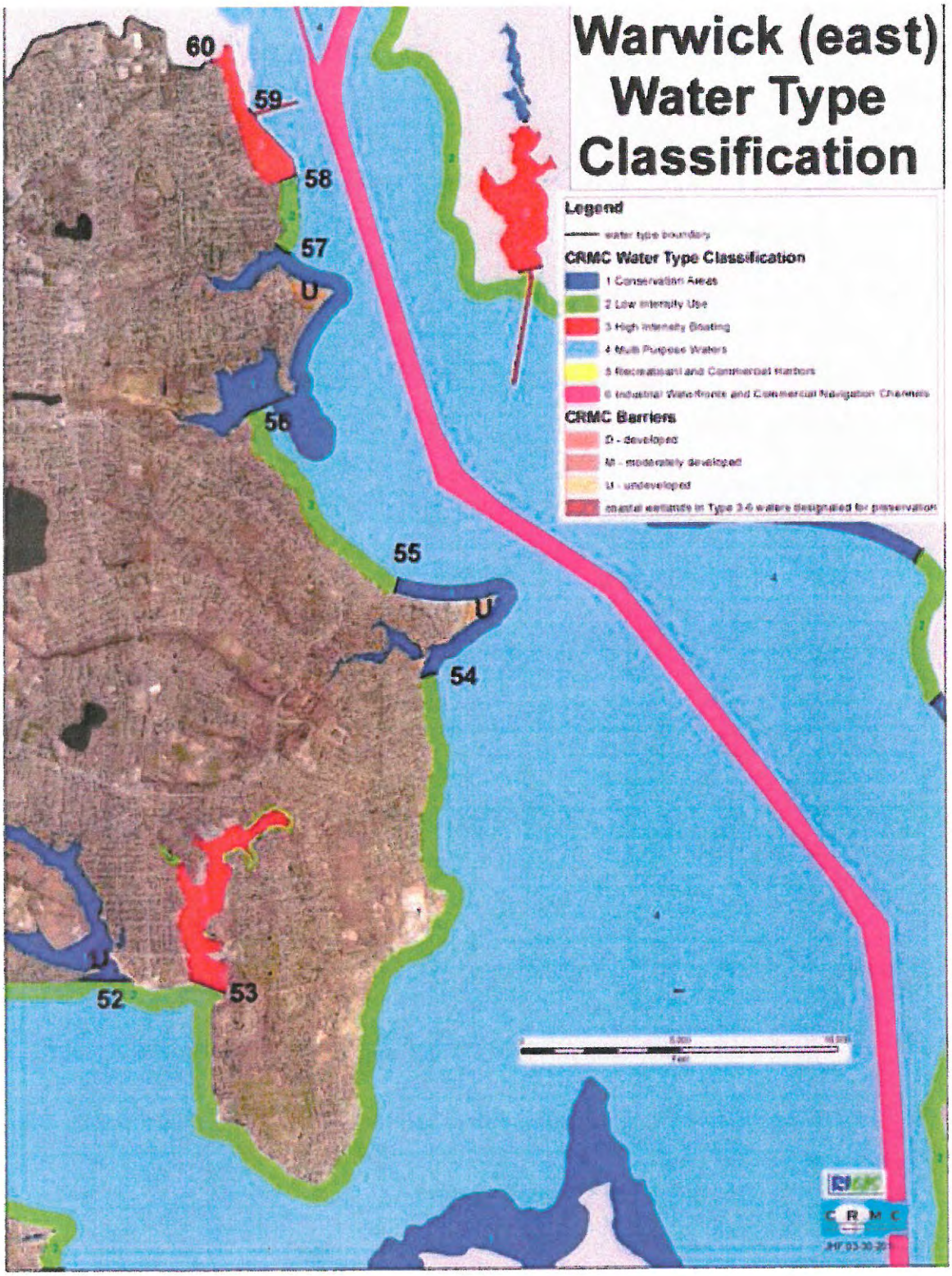
c. Type 5 Waters

(1) Tidal waters bounded by line 50 to the north and line 49 to the south along the western shoreline of the cove.

5. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_warwick_greenwichbay.pdf and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_warwick_warwickpoint.pdf


Warwick and East Greenwich Water Type Classification
51
52
53
48
50
47
46
45
49
44
Legend
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
C R M C

13.


Warwick (east)
Water Type
Classification
Legend
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 Waterfront and Commercial Navigation Channels
CRMC Barriers
D - developed
M - moderately developed
U - undeveloped
60
59
58
57
U
56
55
U
54
U
52
53

L. 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.

1. Type 4 Waters

   a. 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)

2. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_south.pdf

M. 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).

1. Type 5 waters bounded between lines 62 and 63. Type 4 waters west (upstream) of Park Street bridge.

2. Type 1 Waters

   a. 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)

3. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_south.pdf and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_north.pdf

N. Pawtucket

64 - The base of the falls at Main Street in the City of Pawtucket.

1. Online Map:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_north.pdf

O. 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)

1. Type 5 Waters – Bold Point

a. 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.

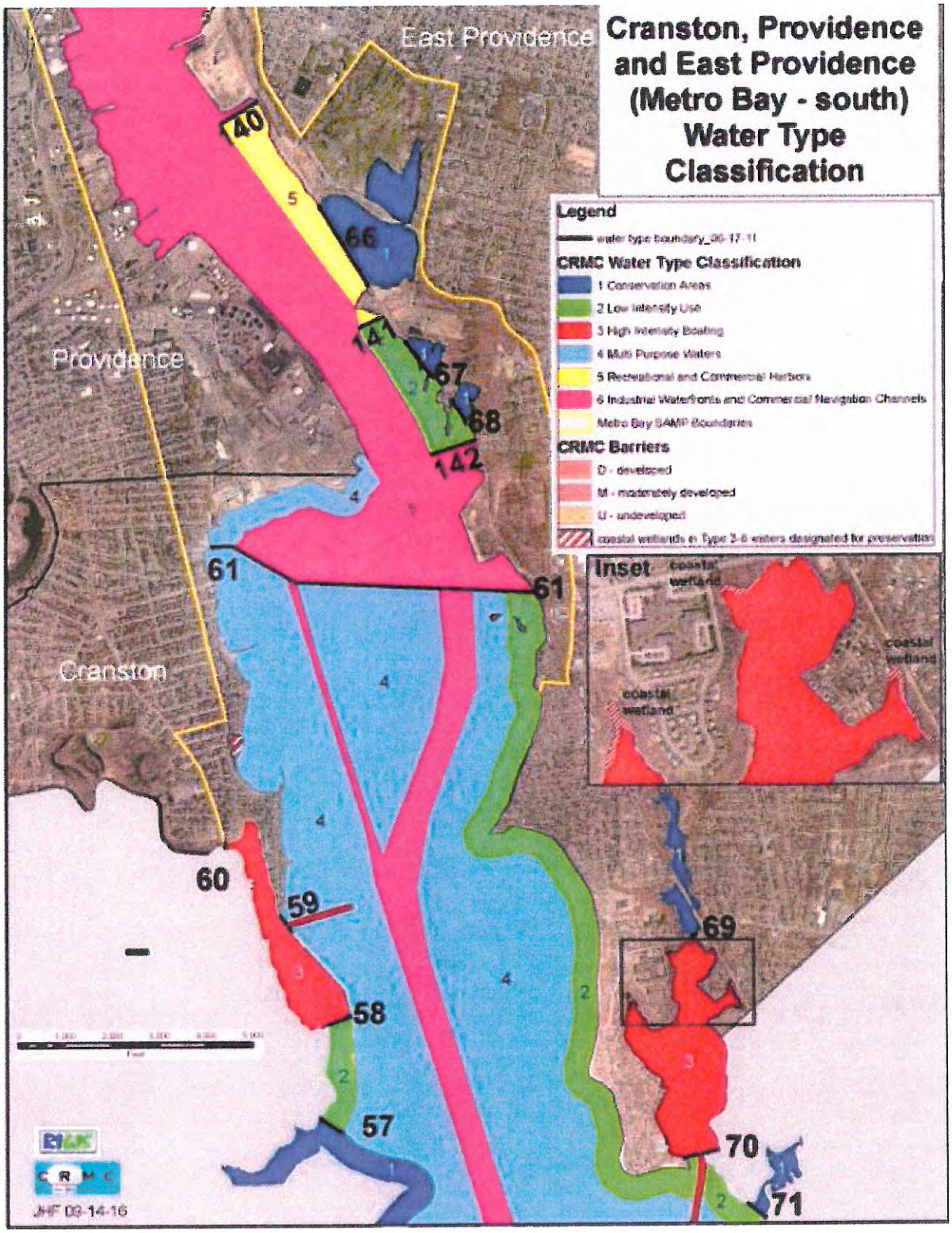
140 - A straight line starting approximately 120 feet south of the existing Providence & Worcester quay (parcel 7-1-3) running WSW and more or less perpendicular to the federal channel out into the river ending approximately 120 from the federal channel. (Adopted by the Council on January 27, 2010)

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)

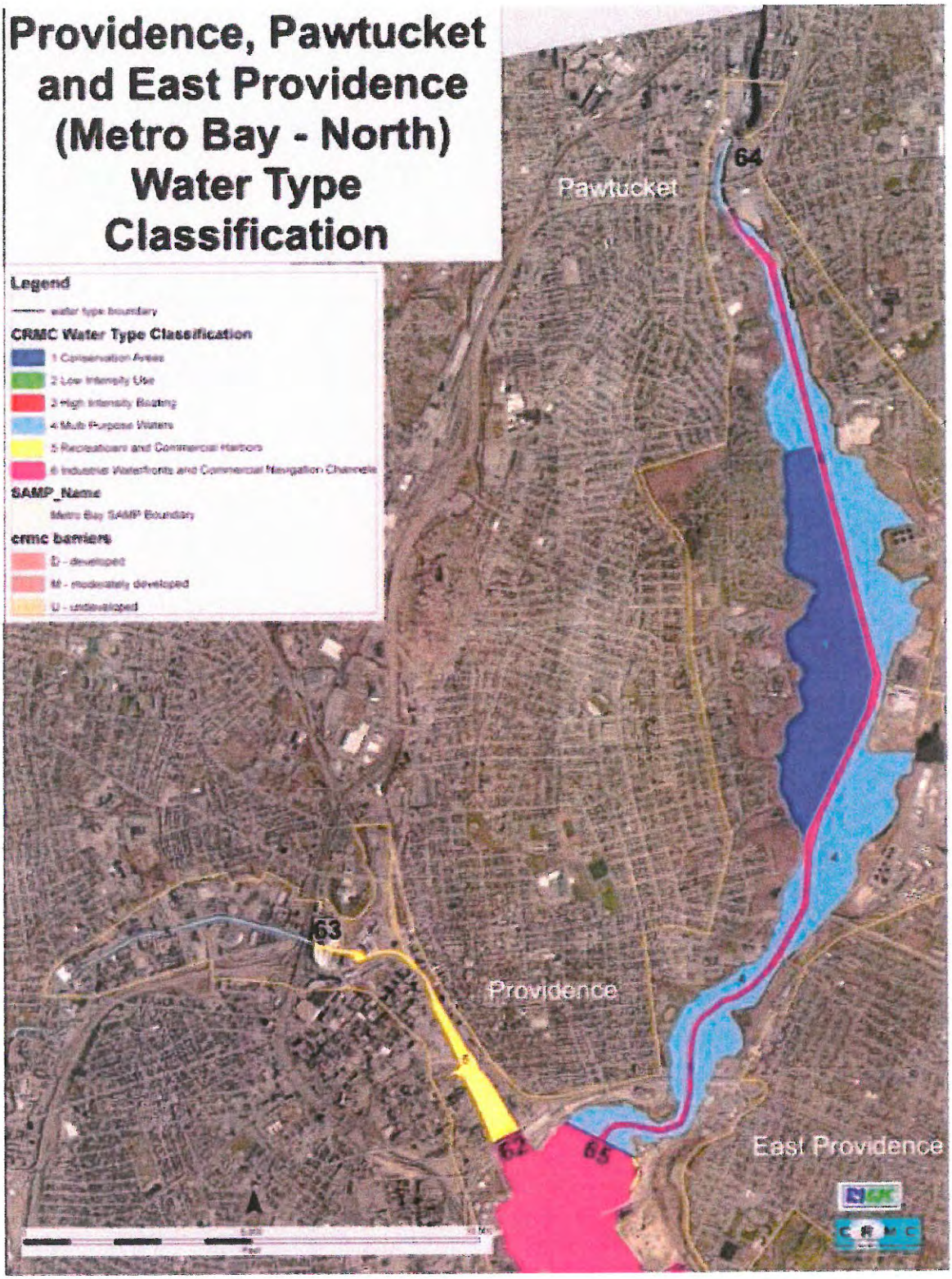
142 - A straight line starting at the boundary of parcels 210-3-6 and 210-3-8 running West out into the river stopping approximately 120 from the federal channel. (Adopted by the Council on January 27, 2010)

2. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_south.pdf and http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_metrobay_north.pdf

3.


Cranston, Providence and East Providence (Metro Bay - south) Water Type Classification
East Providence
Providence
Cranston
Legend
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
Metro Bay SAMP Boundaries
CRMC Barriers
D - developed
M - moderately developed
U - undeveloped
coastal wetlands in Type 3-6 waters designated for preservation
Inset
coastal wetland
40
66
141
67
68
142
61
60
59
58
57
69
70
71
JHF 09-14-16

4.


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
Pawtucket
Providence
East Providence
64
63
62
65

P. 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.

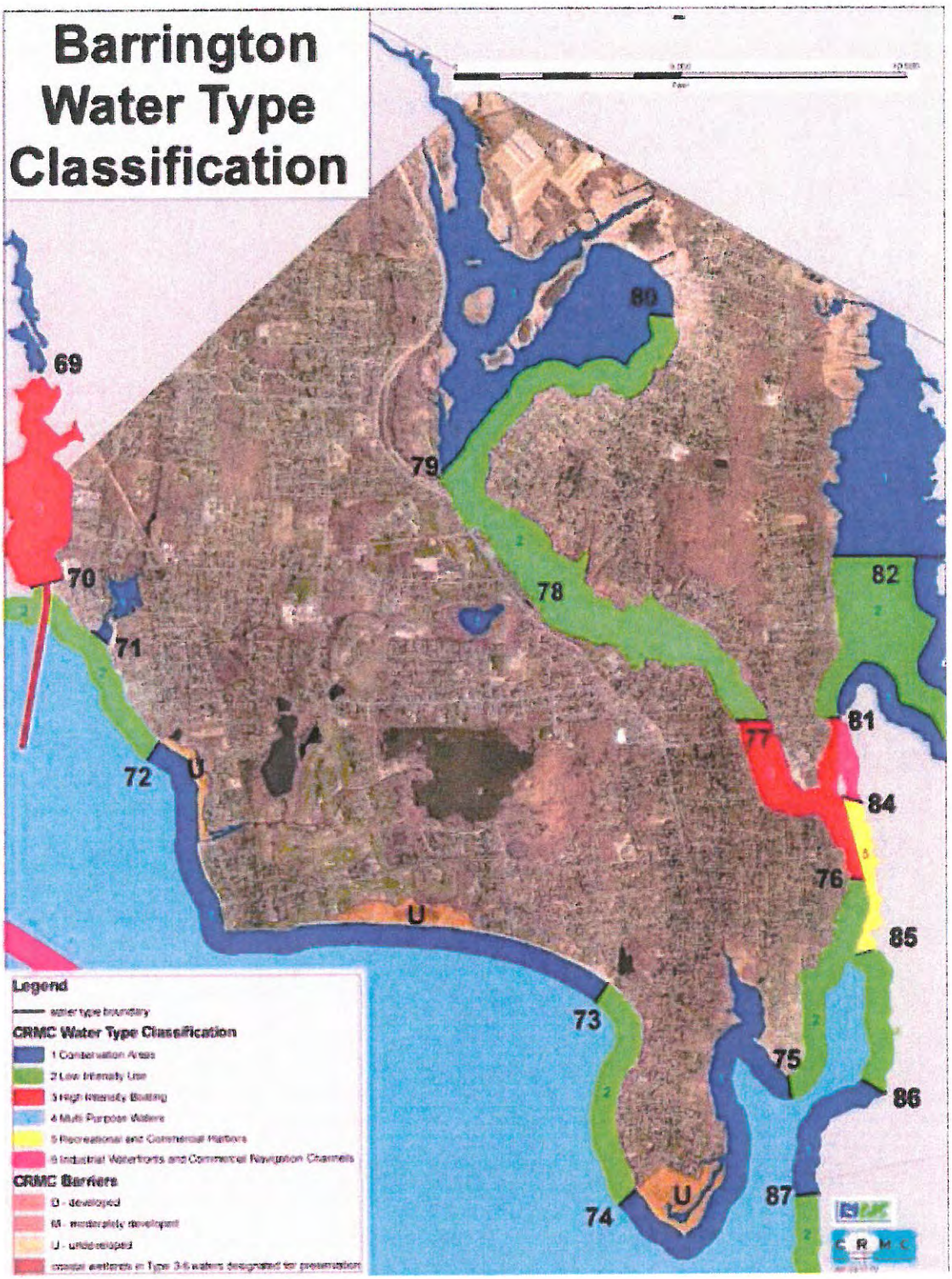
80 - A straight line extension of George Finnerty Road.

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.

1. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_barrington.pdf

2.

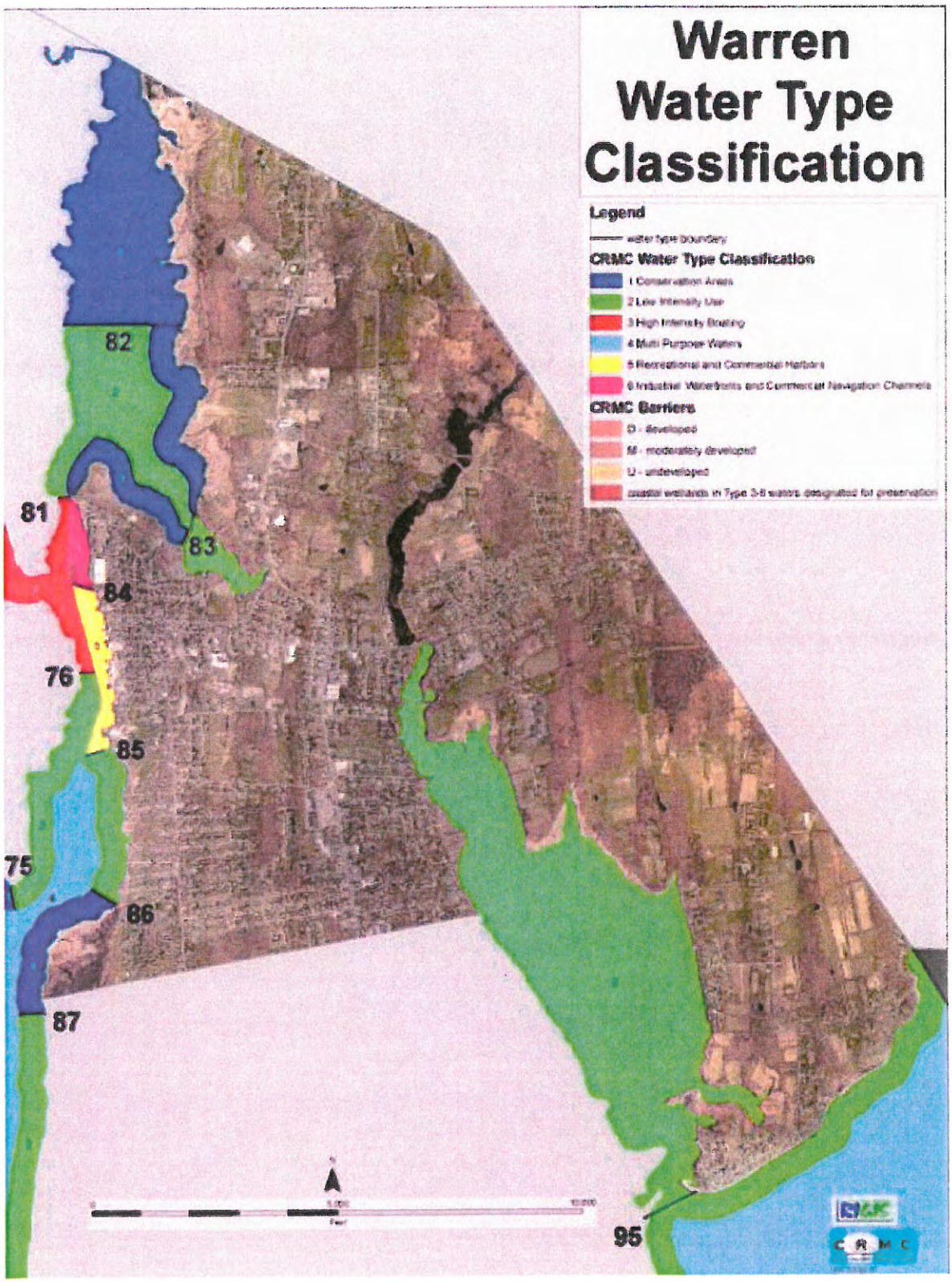

Barrington
Water Type
Classification
69
70
71
72
73
74
75
76
77
78
79
80
81
82
84
85
86
87
U
Legend
water type boundary
CRMC Water Type Classification
1 Conservation Areas
2 Low Intensity Use
3 High Intensity Boating
4 Multi Purpose Waters
5 Recreational and Commercial Harbors
6 Industrial Waterfronts and Commercial Navigation Channels
CRMC Barriers
D - developed
M - moderately developed
U - undeveloped
coastal wetlands in Type 3-6 waters designated for preservation

Q. 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.

1. Online Map:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_warren.pdf

2.


Warren
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
82
81
83
84
76
85
75
86
87
95

R. 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.

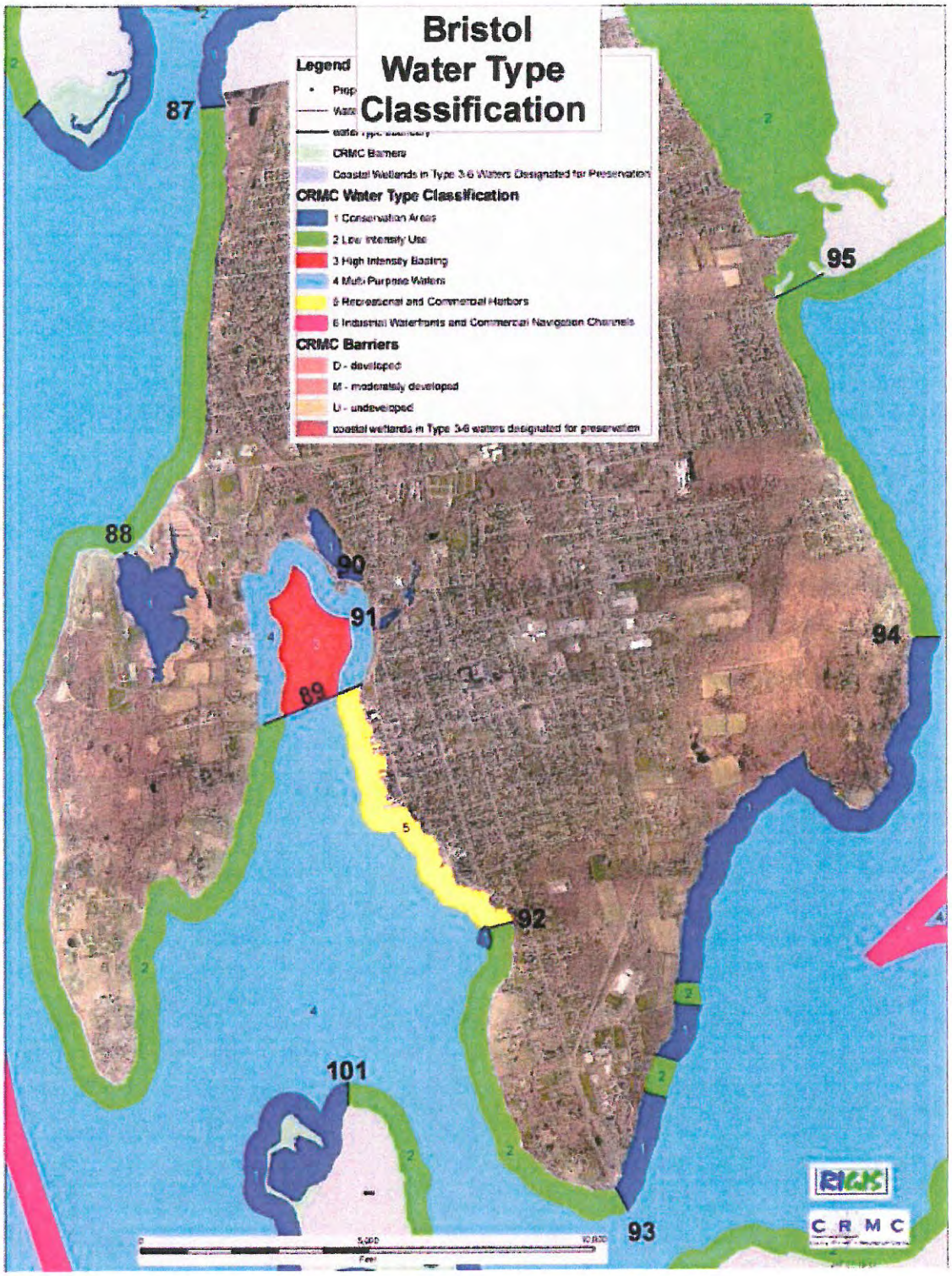
95 - A straight line from the tip of the peninsula at end of Narrows Road in Bristol to the tip of the peninsula near the end of Brownell Street in Warren.

1. Type 2 Waters

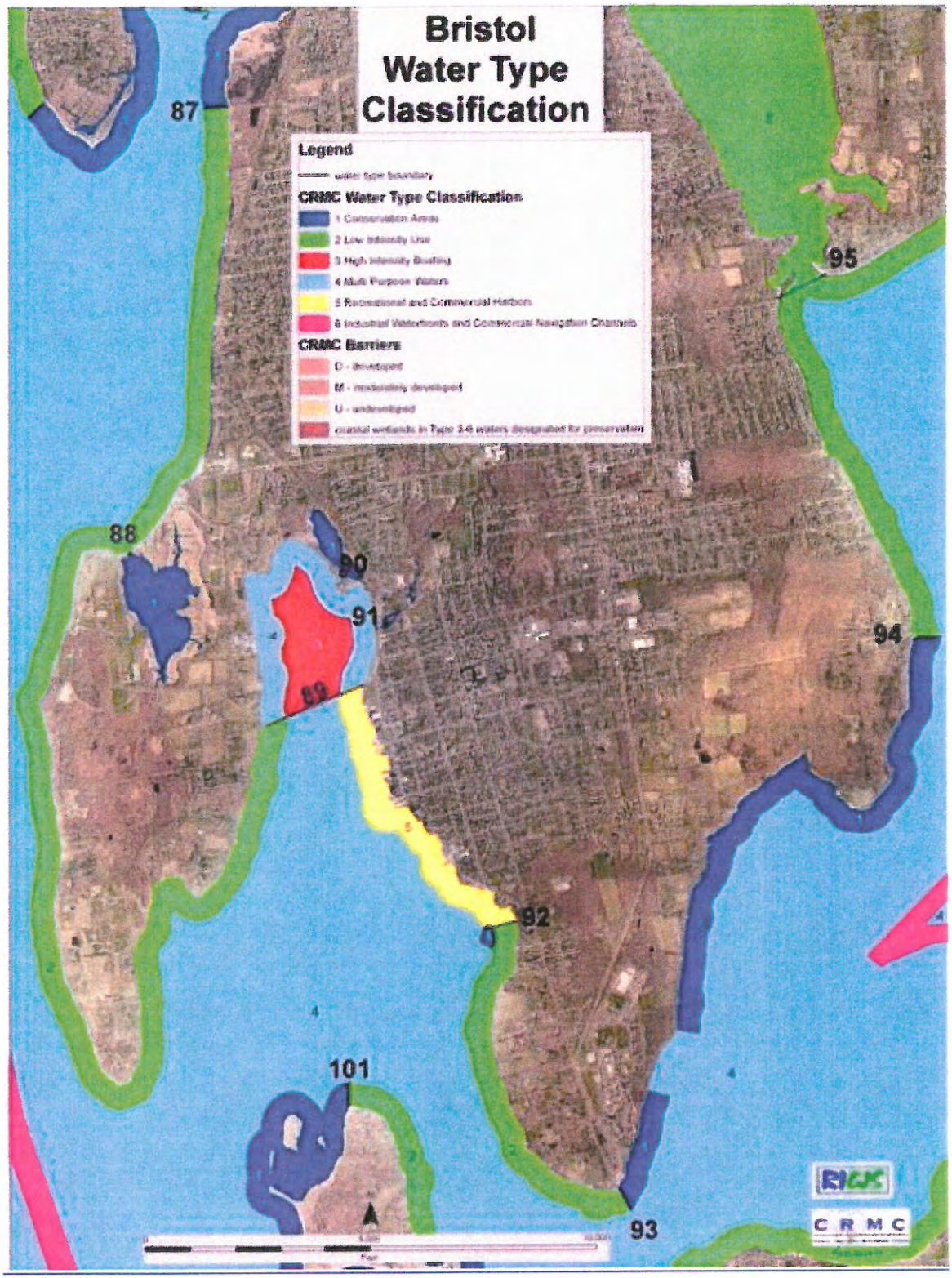
   a. Along the Mount Hope Bay shoreline and abutting the Roger Williams University campus property. Starting from State Plane Coordinates (RIspf83) 395,162.845N/208,561.138E; 395,115.622N/208,094.471E; 394,707.289N/206,930.582E; and 394,437.845N/206,152.804E out to 500 feet offshore. (Adopted by the Council on June 25, 2013)

2. Online Map:
   http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_bristol.pdf

3. Note: The map below to be replaced with the following map as approved by CRMC P&P subcommittee on 01/16/18



Note: Revised Bristol water type map to replace preceding map as approved by CRMC Planning & Procedures subcommittee on 01/16/18



S. 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.

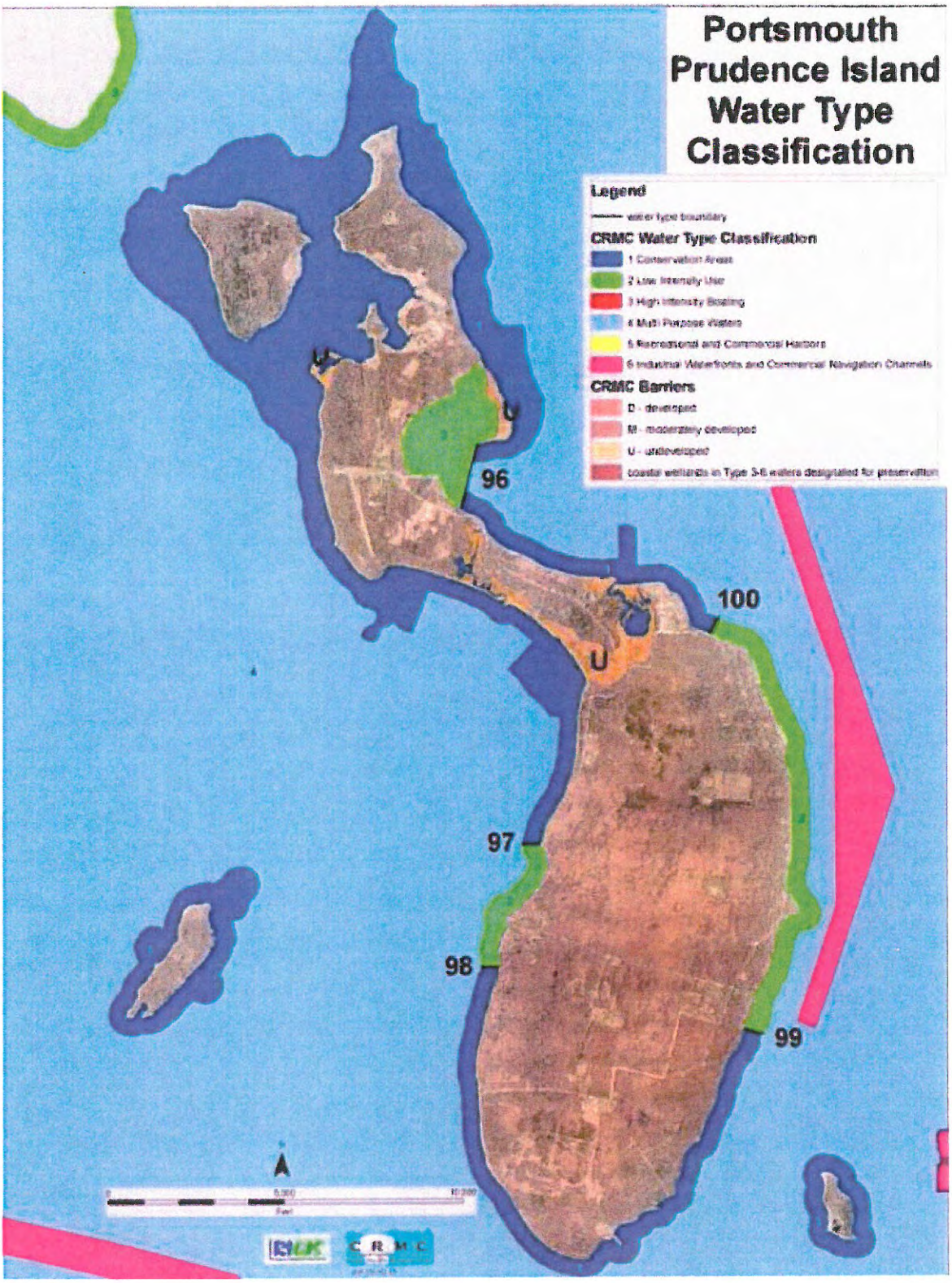
107 - A straight line connecting the north sides of the abutments of the former Old Stone Bridge.

108 - A straight line along the west side of the bridge connecting Point Road and Hummock Avenue at the entrance to Blue Bill Cove.

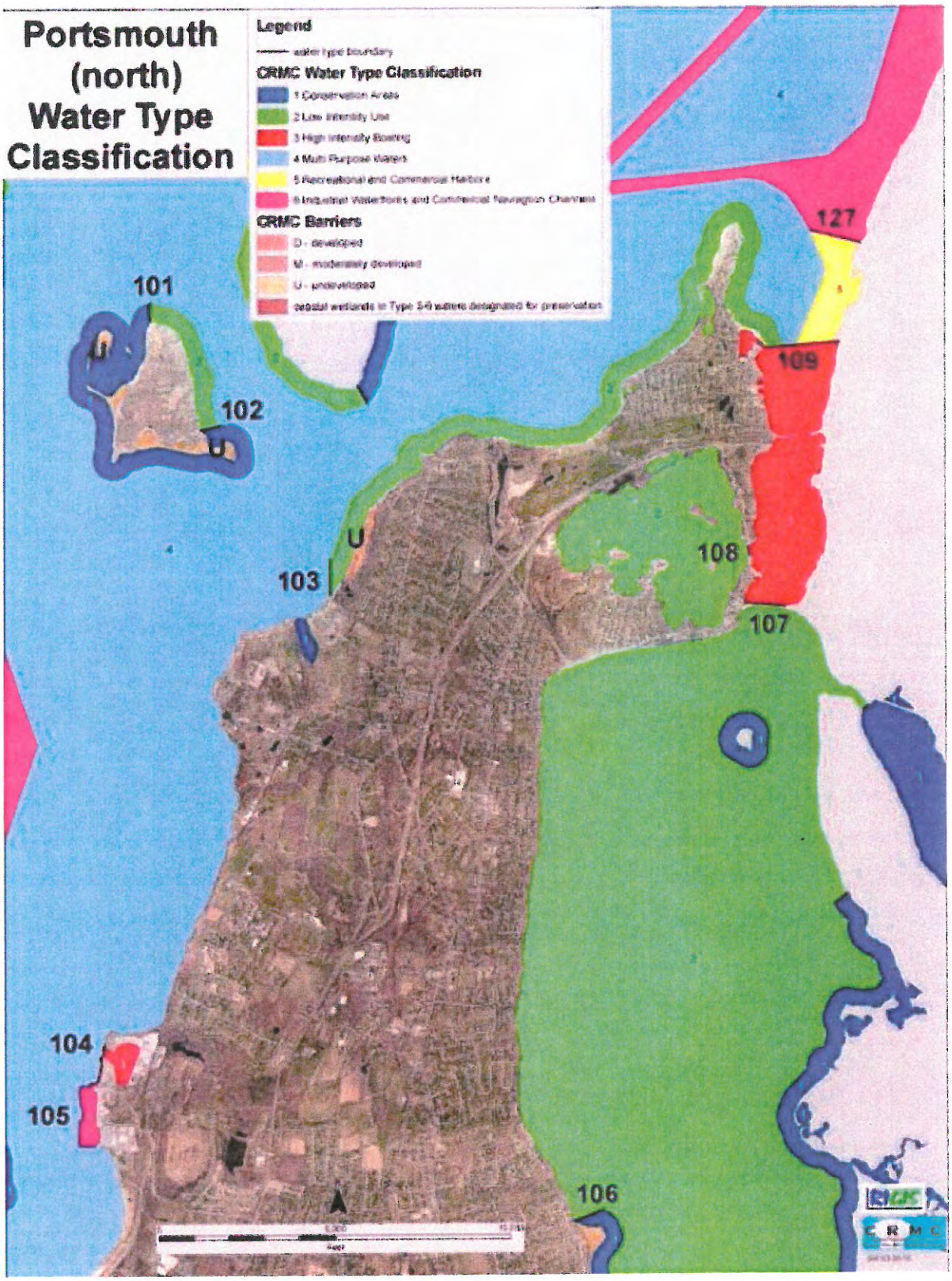
109 - A straight line from the southern border of the industrially zoned area in Tiverton to the tip of the peninsula on the north side of Brewer's Marina in Portsmouth.

1. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_portsmouth_prudence.pdf;
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_portsmouth_north.pdf; and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_portsmouth_south.pdf

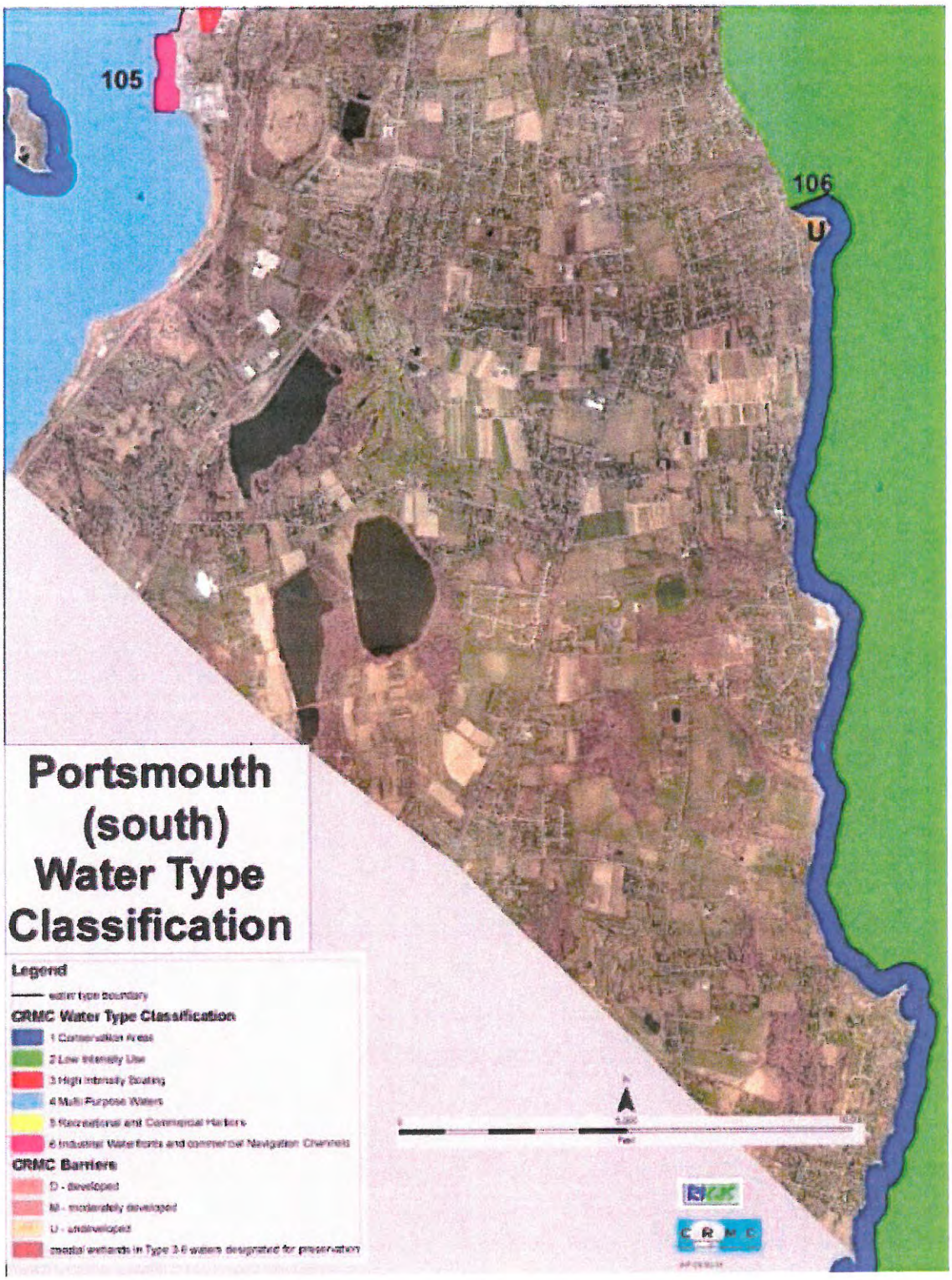
2.


Portsmouth
Prudence Island
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
96
100
97
98
99
U

3.


Portsmouth (north) Water Type Classification
Legend
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
101
102
U
103
U
104
105
106
107
108
109
127

4.


105
106
U
Portsmouth (south) Water Type Classification
Legend
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

T. Middletown

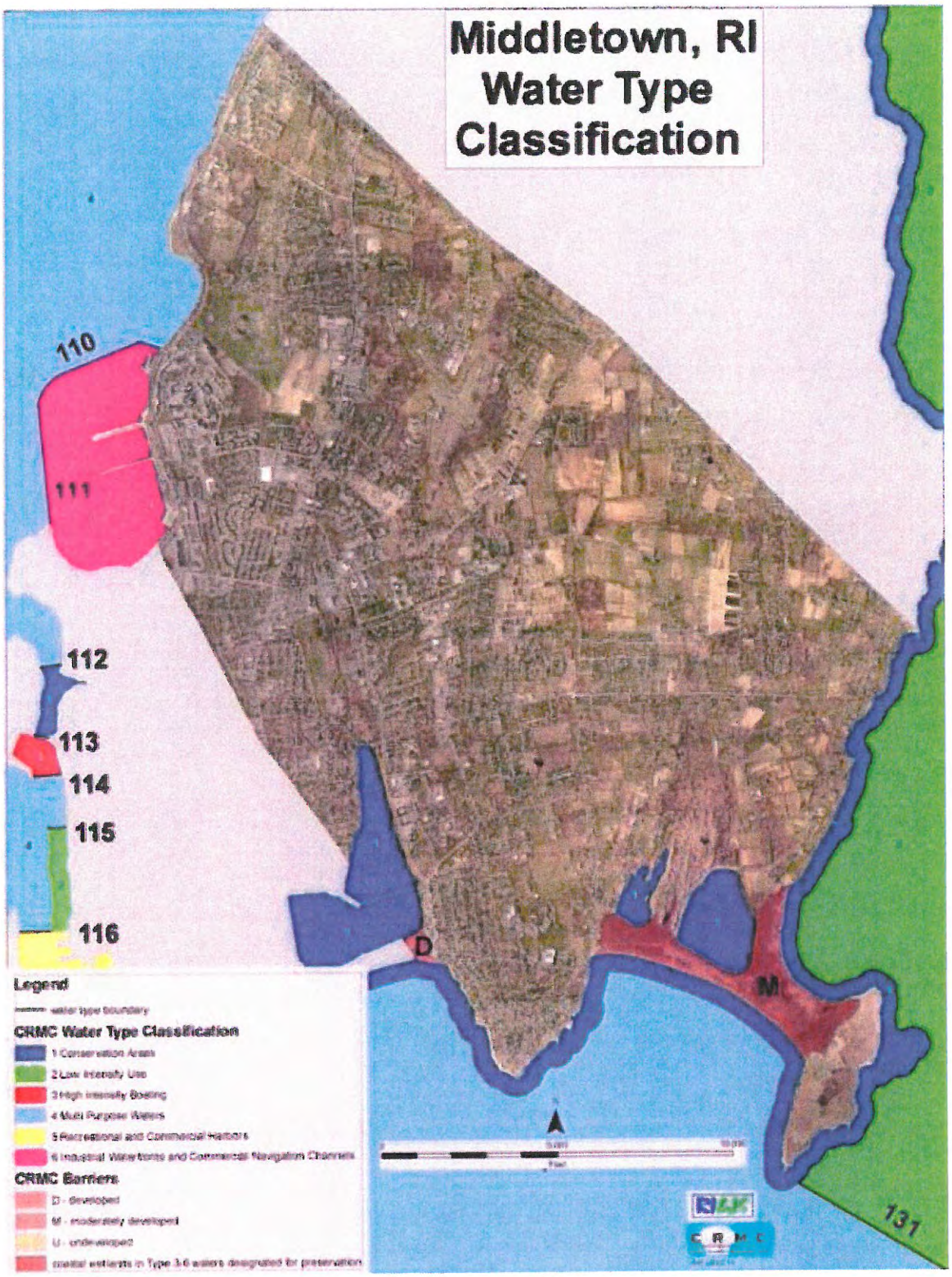
110 - The northern border of the rubble-mound breakwater.

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.

1. Online Map: http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_middletown.pdf

2.


Middletown, RI
Water Type
Classification
110
111
112
113
114
115
116
D
M
131
Legend
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

U. 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.

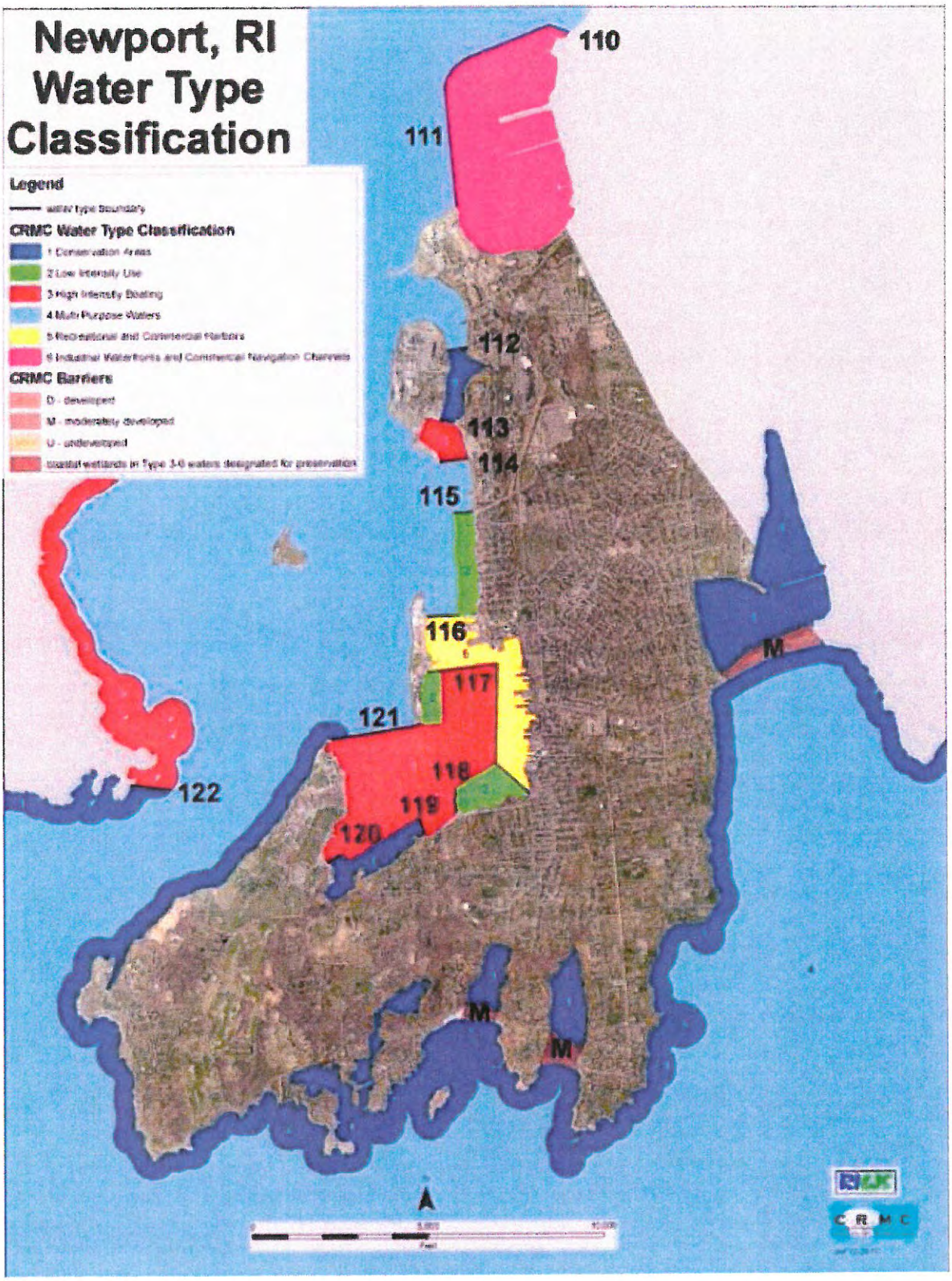
119 - A straight line extension from shore along the western side of the pier.

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.

1. Online Map:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_newport.pdf

2.


Newport, RI
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
110
111
112
113
114
115
116
117
118
119
120
121
122
M
M
M
A

338

V. 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.

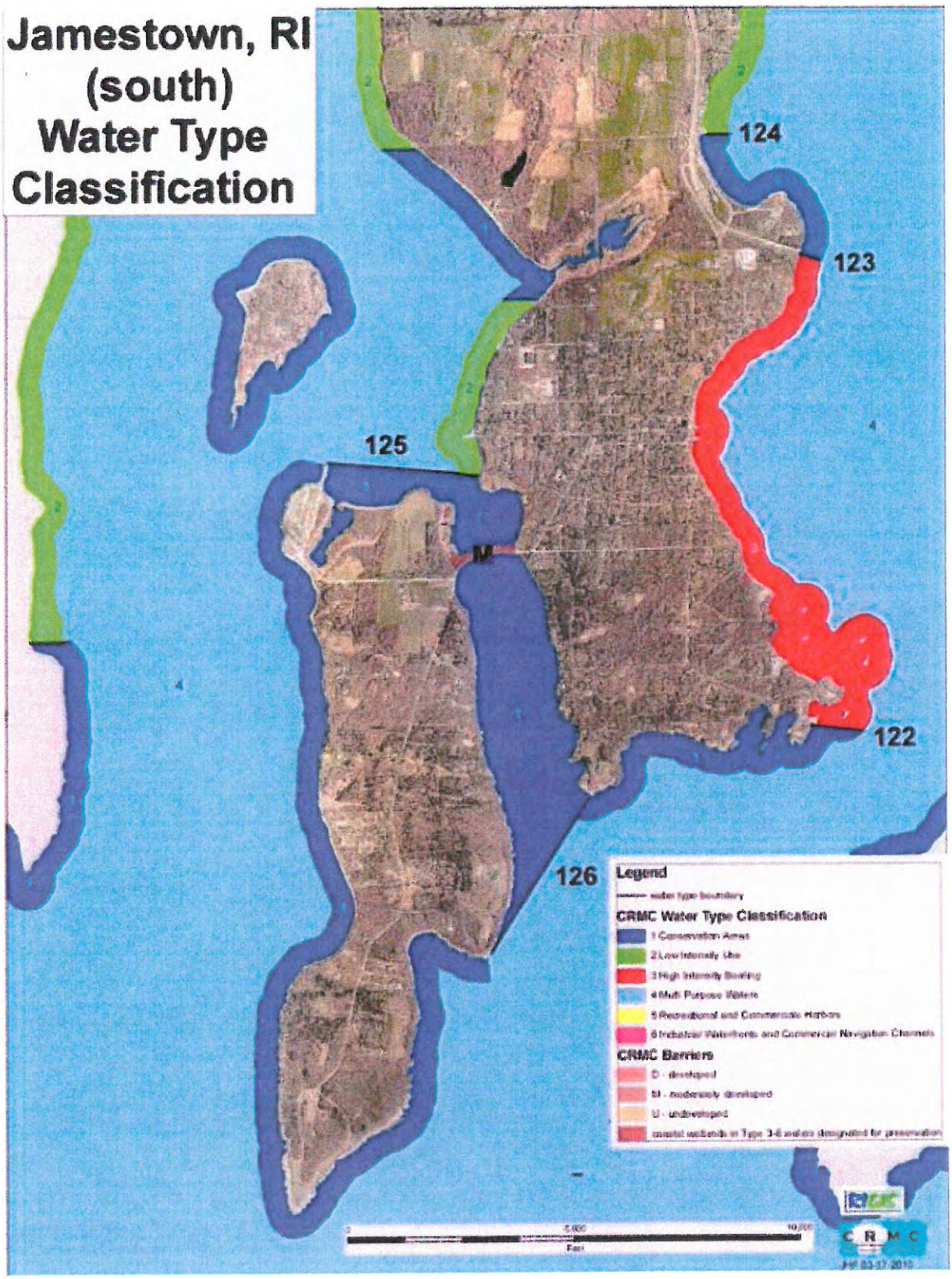
125 - A straight line from the southern end of Maple Avenue to the end of the large wharf at Beaverhead.

126 - A straight line from Southwest Point to the tip of Shore Point.

1. 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)

2. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_jamestown_south.pdf and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_jamestown_north.pdf

3.


Jamestown, RI
(south)
Water Type
Classification
124
123
125
122
126
Legend
CRMC Water Type Classification
CRMC Barriers
Feet
C R M C

4.

Jamestown, RI
(north)
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers

V. 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.

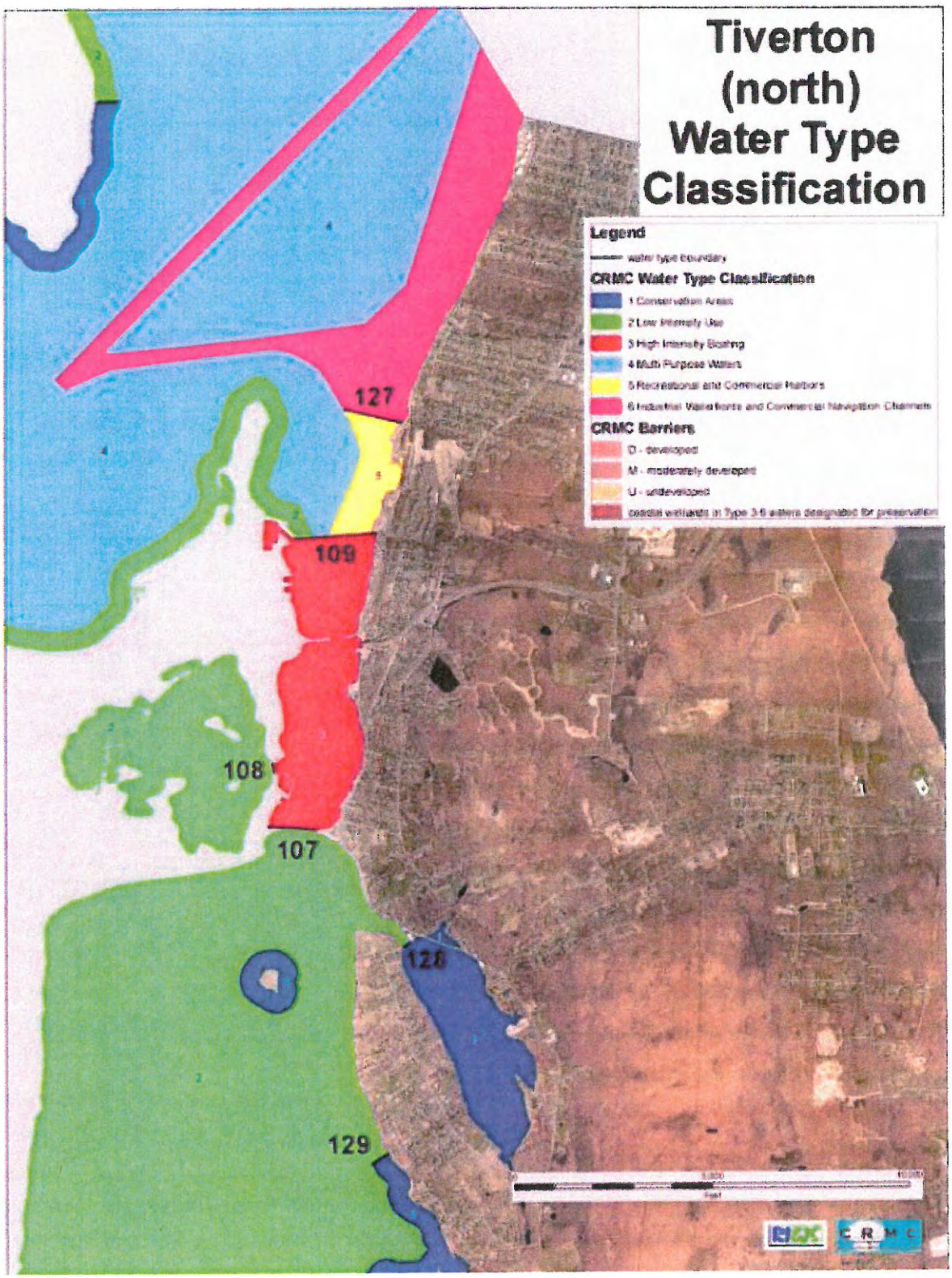
128 - A straight line along the south side of the Nannaquaket Pond Bridge.

129 - A straight line extension of the south side of Island View Road.

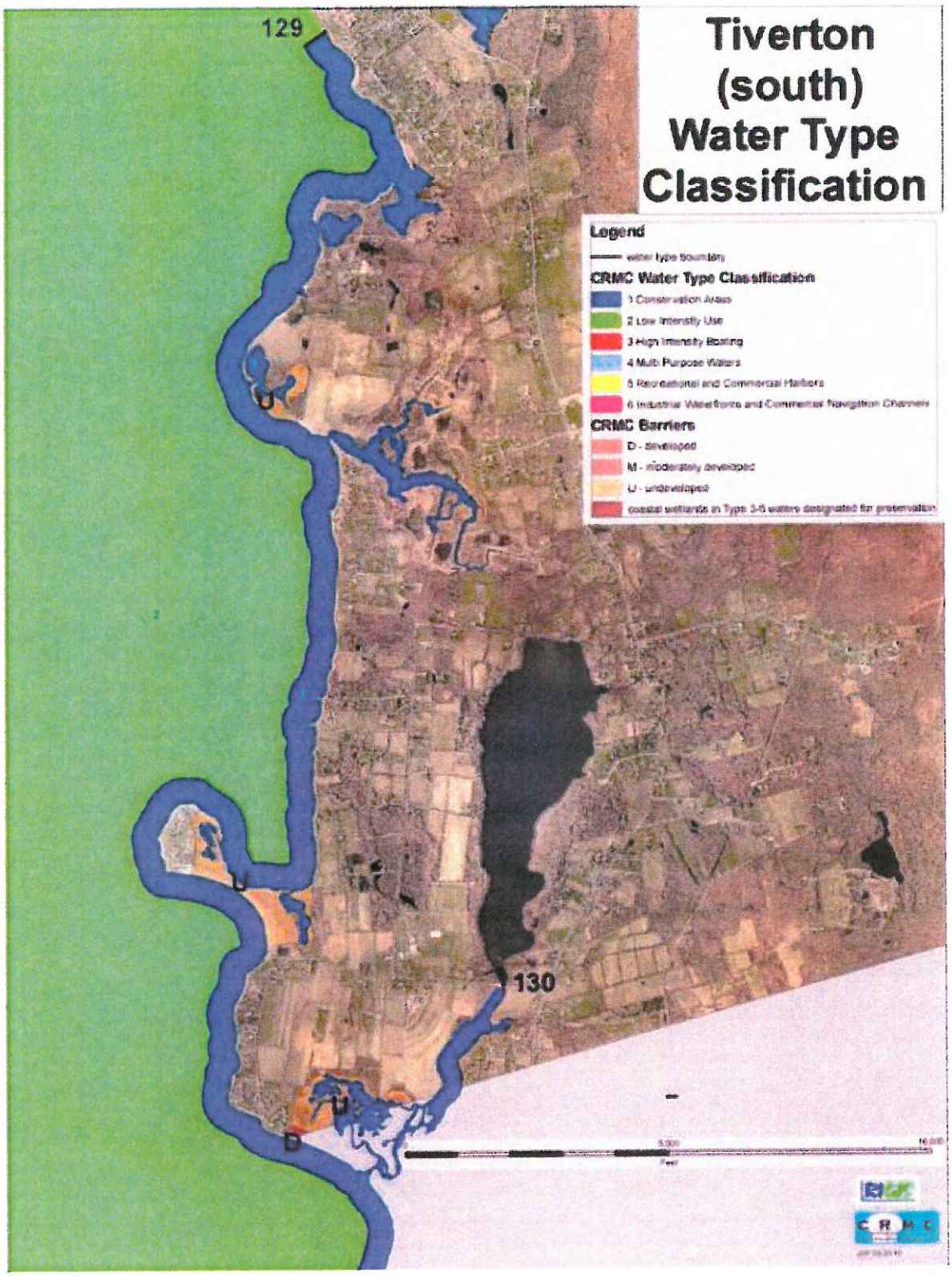
130 - A straight line at the north side of the Nonquit Pond Dam.

1. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_tivertonnorth.pdf and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_tivertonsouth.pdf

2.


Tiverton
(north)
Water Type
Classification
Legend
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
127
109
108
107
128
129

3.


Tiverton
(south)
Water Type
Classification
Legend
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
129
130
U
U
U
D

W. Little Compton

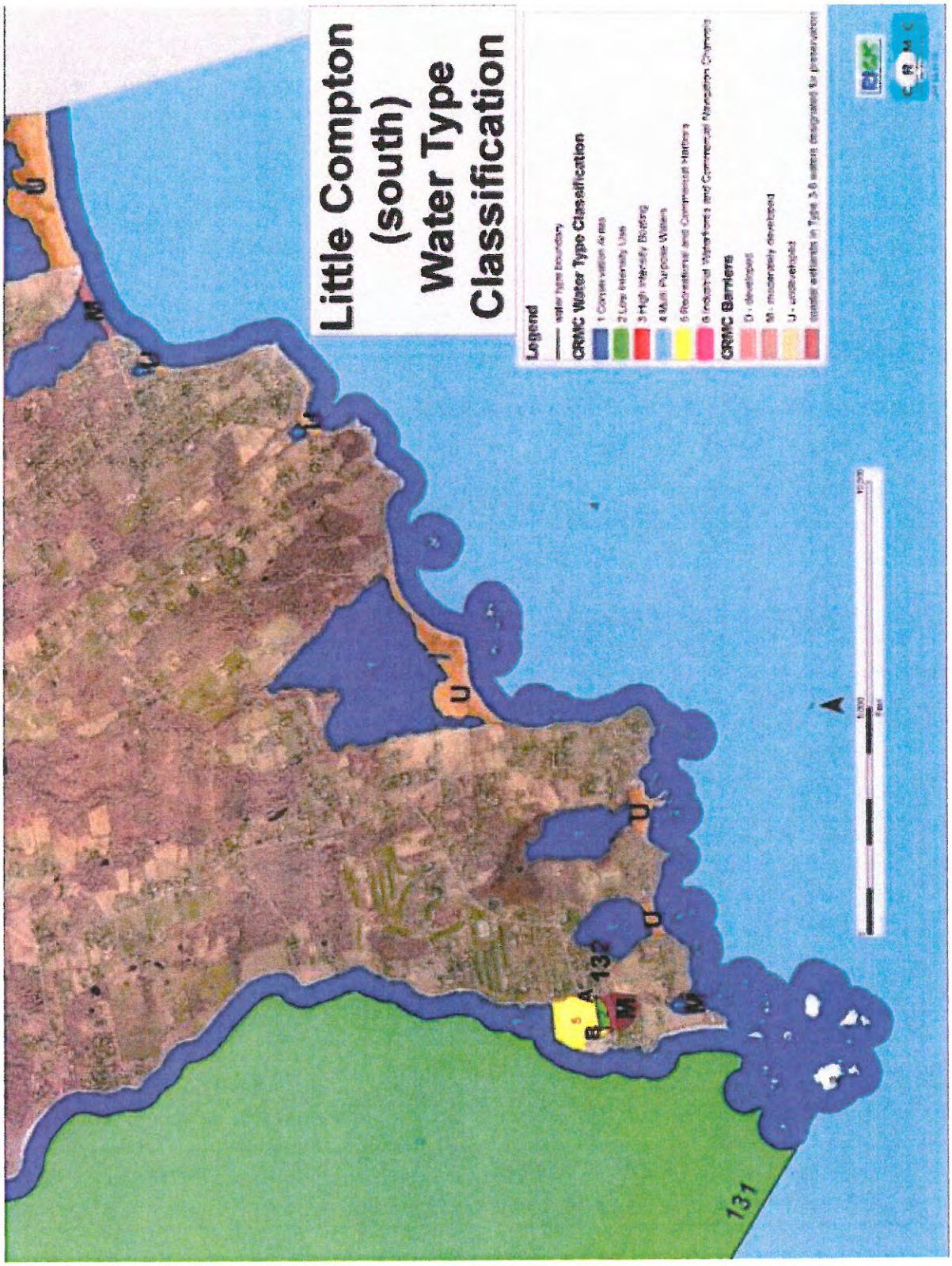
131 - A straight line across the entrance to the Sakonnet River from the tip of Sachuest Point to the southern tip of West Island near Sakonnet Point.

1. Sakonnet Harbor

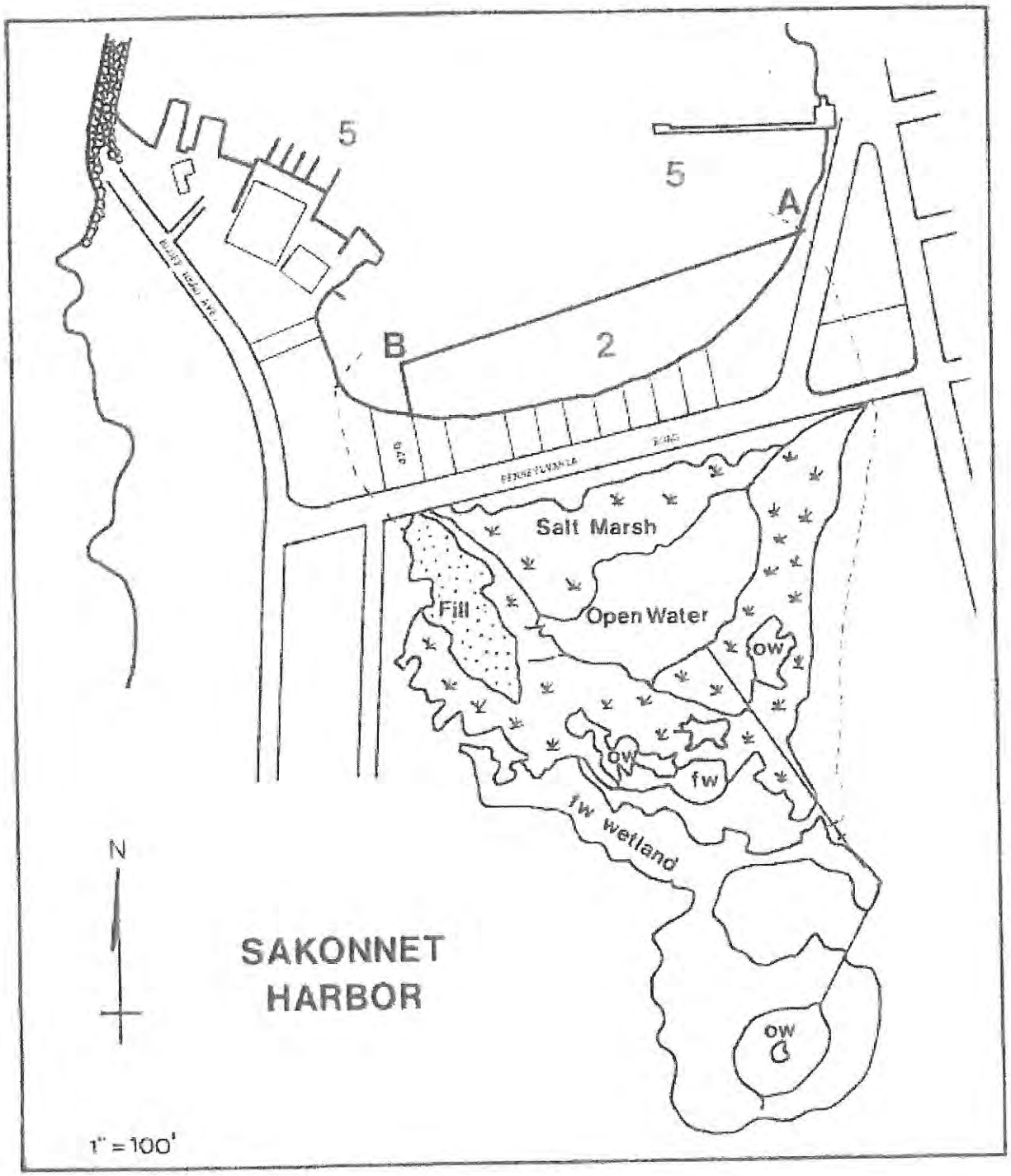
132 - The water area immediately adjacent to the barrier beach, starting at Point A (the northeast edge of Lot 385 where the eastern boundary of the barrier beach, identified by Dr. Boothroyd, intersects with the shore) then extending toward the western shore boundary of the barrier beach designated 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.

2. Online Maps:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_littlecompton_south.pdf;
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_littlecompton_north.pdf; and
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_sakonnetharbor.pdf

2.


Little Compton
(south)
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
131

3.


5
5
A
B
2
Salt Marsh
Fill
Open Water
ow
ow
fw
fw wetland
ow
N
SAKONNET
HARBOR
1" = 100'

4.

Little Compton (north) Water Type Classification
Legend
CRMC Water Type Classifications
CRMC Barriers
D
U
U

X. 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.

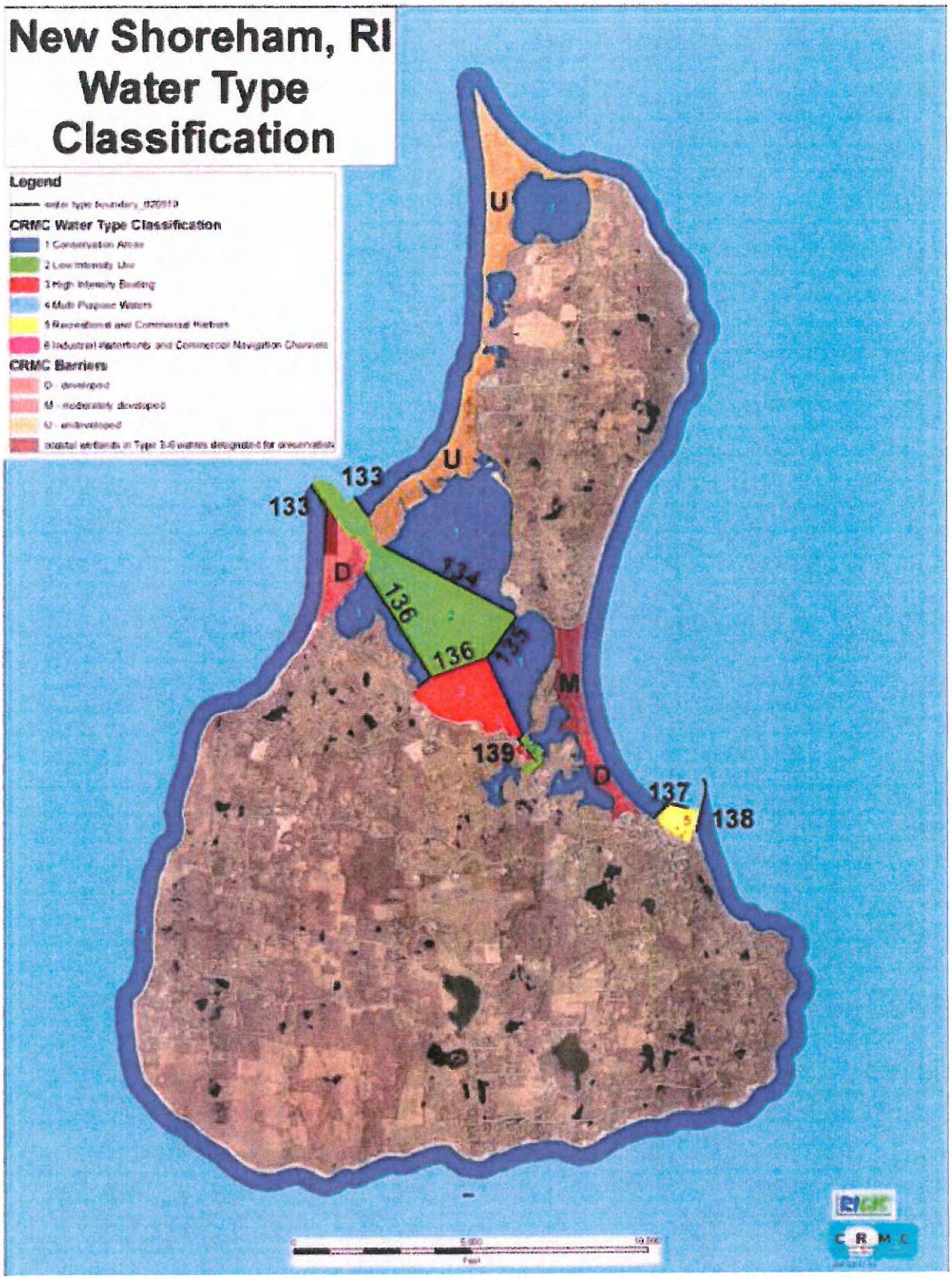
137 - A line along the outside of the west breakwater.

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.

1. Online Map:
http://www.crmc.ri.gov/maps/maps_wateruse/watertypemaps_blockisland.pdf

2.


New Shoreham, RI
Water Type
Classification
Legend
CRMC Water Type Classification
CRMC Barriers
U
U
133
133
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138

350

1.7 Shoreline Change Maps - Watch Hill to Little Compton and Block Island

A. The Coastal Resources Management Council adopted in 2008 orthophoto aerial image shoreline change maps that were developed by the University of Rhode Island. These maps 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. Shoreline change maps are now completed for Block Island.

B. 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 accretion and erosion rates for the shoreline associated with shoreline transect segments for each map. In total there are ~~178~~ 187 such maps, which are herein incorporated as regulations of the RICRMP. ~~Maps for Block Island are not currently included, however, and setbacks and erosion rates for Block Island shall be assessed on a case-by-case basis. The Block Island maps will be added when analysis is completed at a later date.~~

C. The maps for the communities of Westerly, Charlestown, South Kingstown, Narragansett and North Kingstown are based on 2014 orthophoto aerial images and are listed under Washington County (2016). These maps show various shorelines from 1939, 1951, 1963, 2012 and 2014 aerial images. In addition, four new panels for the Narrow River have been included. The remaining maps adopted in 2008 include only the shorelines interpreted from aerial images of 1939, 1975 and 2003 for maps covering Narrow River northward into the Bay, islands and to Little Compton or 2004 for the shoreline from Napatree Point to Narragansett Beach.

D. The maps for the community of New Shoreham (Block Island) are based on 2016 orthophoto aerial images and are listed under Block Island (2017). These maps show the shoreline positions and change as determined from the differences between the 1952 and 2016 aerial images.

~~D~~E. These shoreline change maps are orthophoto aerial images which individually are very large digital computer files. They can be examined on-line at the Council's website: http://www.crmc.ri.gov/maps/maps_shorechange.html.

F. Westerly

1. Napatree Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Napatree-Beach.pdf

2. Watch Hill. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Watch-Hill.pdf

3. Maschaug Pond. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Maschaug-Pond.pdf

4. Misquamicut Headland. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Misquamicut-Headland.pdf

5. Atlantic Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Atlantic-Beach.pdf

6. Weekapaug Breachway. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Weekapaug-Breachway.pdf

7. Weekapaug Headland. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Weekapaug-Headland.pdf

8. Quonochontaug Barrier. Online map: http://www.crmc.ri.gov/maps/shorechange/Westerly_Quonochontaug-Barrier.pdf

G. Charlestown

1. Quonochontaug Headland. Online map: http://www.crmc.ri.gov/maps/shorechange/Charlestown_Quonochontaug-Headland.pdf

2. East Beach-West. Online map: http://www.crmc.ri.gov/maps/shorechange/Charlestown_East-Beach_West.pdf

3. East Beach-East. Online map: http://www.crmc.ri.gov/maps/shorechange/Charlestown_East-Beach_East.pdf

4. Charlestown Breachway. Online map: http://www.crmc.ri.gov/maps/shorechange/Charlestown_Charlestown-Breachway.pdf

H. South Kingstown

1. Green Hill Barrier. Online map: http://www.crmc.ri.gov/maps/shorechange/South-Kingstown_Green-Hill-Barrier.pdf

2. Moonstone Barrier. Online map: http://www.crmc.ri.gov/maps/shorechange/South-Kingstown_Moonstone-Barrier.pdf

3. Matunuck Headland. Online map: http://www.crmc.ri.gov/maps/shorechange/South-Kingstown_Matunuck-Headland.pdf

4. Succotash Barrier. Online map: http://www.crmc.ri.gov/maps/shorechange/South-Kingstown_Succotash-Barrier.pdf

I. Narragansett

1. Galilee Sand Hill Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Galilee-Sand_Hill_Cove.pdf

2. Point Judith. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Point-Judith.pdf

3. Scarborough Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Scarborough-Beach.pdf

4. Black Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Black-Point.pdf

5. Hazard-Rocks. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Hazard-Rocks.pdf

6. Narragansett Pier. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narragansett-Pier.pdf

7. Narragansett Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narragansett-Beach.pdf

8. Cormorant Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Cormorant_Point.pdf

9. Boston Neck. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Boston_Neck.pdf

10. Bonnet Shores. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Bonnet_Shores.pdf

11. South Ferry. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_South_Ferry.pdf

12. Saunderstown. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Saunderstown.pdf

13. Narrow River Sprague Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narrow_River-Sprague_Bridge.pdf

14. Narrow River Pettasquamscutt Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narrow_River-Pettaquamscutt_Cove.pdf

15. Narrow river Middle Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narrow_River-Middle_Bridge.pdf

16. Narrow River Bridgetown. Online map: http://www.crmc.ri.gov/maps/shorechange/Narragansett_Narrow_River-Bridgetown.pdf

J. North Kingstown

1. Plum Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Plum_Beach.pdf

2. Greene Point. Online map; http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Greene_Point.pdf

3. Bissel Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Bissel_Cove.pdf

4. Cold Spring Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Cold_Spring_Beach.pdf

5. Wickford Harbor. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Wickford_Harbor.pdf

6. Mill Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Mill_Cove.pdf

7. Sauga Point. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Sauga_Point.pdf

8. Quonset Point. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Quonset_Point.pdf

9. Davisville Depot. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Davisville_Depot.pdf

10. Allen Harbor. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Allen_Harbor.pdf

11. Quidnessett. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Quidnessett.pdf

12. Potowomut River-East. Online map:http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Potowomut_River_East.pdf

13. Potowomut River-West. Online map: http://www.crmc.ri.gov/maps/shorechange/North_Kingstown_Potowomut_River_West.pdf

K. East Greenwich

1. Greenwich Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Greenwich_Greenwich_Cove.pdf

L. Warwick

1. Sally Rock Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Warwick_Sally_Rock_Point.pdf

2. Goddard Park. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Goddard_Park.pdf

3. Cowesett-Chepiwanoxet. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Cowesett_Chepiwanoxet.pdf

4. Apponaug Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Apponaug_Cove.pdf

5. Cedar Tree Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Cedar_Tree_Point.pdf

6. Buttonwods-Brush Neck. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Buttonwoods_Brush_Neck.pdf

7. Warwick Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Warwick_Cove.pdf

8. Warwick Neck-West. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Warwick_Neck_West.pdf

9. Warwick Neck-East. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Warwick_Neck_East.pdf

10. Rocky Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Rocky_Point.pdf

11. Mill Creek. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Mill_Creek.pdf

12. Conimicut Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Conimicut_Point.pdf

13. Conimicut. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Conimicut.pdf

14. Gaspee point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Gaspee_Point.pdf

15. Pawtuxet Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Warwick_Pawtuxet_Cove.pdf

M. Cranston

1. Stillhouse Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Cranston_Stilhouse_Cove.pdf

N. Providence

1. Fields Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Providence_Fields_Point.pdf

2. Fox Point Reach. Online map: http://www.crmc.ri.gov/maps/shorechange/Providence_Fox_Point_Reach.pdf

3. Fox Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Providence_Fox_Point.pdf

4. Point Street Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/Providence_Point_Street_Bridge.pdf

O. Pawtucket

1. Seekonk River. Online map: http://www.crmc.ri.gov/maps/shorechange/Pawtucket_N_Seekonk_River.pdf

P. East Providence

1. Bucklin Point. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Bucklin_Point_Bishop_Point.pdf

2. Phillipsdale. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Phillipsdale.pdf

3. Red Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Red_Bridge.pdf

4. Watchemocket Cove. Online maps: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Watchemoket_Cove.pdf

5. Pomham Rocks. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Pomham_Rocks.pdf

6. Sabin Point. Online Map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Sabin_Point.pdf

7. Bullock Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/East_Providence_Bullock_Cove.pdf

Q. Barrington

1. Annawomscutt. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Annawomscutt.pdf

2. Nyatt Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Nyatt_Point.pdf

3. Barrington Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Barrington_Beach.pdf

4. Rumstick Neck. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Rumstick_Neck.pdf

5. Barrington River. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Barrington_River.pdf

6. Barrington River-North. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_N_Barrington_River.pdf

7. Hundred Acre Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Hundred_Acre_Cove.pdf

8. Palmer River. Online map: http://www.crmc.ri.gov/maps/shorechange/Barrington_Palmer_River.pdf

R. Warren

1. Belcher Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Warren_Belcher_Cove.pdf

2. Warren River. Online map: http://www.crmc.ri.gov/maps/shorechange/Warren_Warren_River.pdf

3. Kickemuit River. Online map: http://www.crmc.ri.gov/maps/shorechange/Warren_Kickamuit_River.pdf

4. Coggeshall. Online Map:
http://www.crmc.ri.gov/maps/shorechange/Warren_Coggeshall.pdf

S. Bristol

1. Jacobs Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Jacobs_Point.pdf

2. North Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_North_Point.pdf

3. Colt State Park. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Colt_State_Park.pdf

4. Popasquash Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Popasquash_Point.pdf

5. Bristol Harbor. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Bristol_Harbor.pdf

6. Walker Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Walker_Cove.pdf

7. Bristol Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Bristol_Point.pdf

8. Mount Hope. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Mount_Hope.pdf

9. Bristol Neck. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_E_Bristol_Neck.pdf

10. Bristol Narrows. Online map:
http://www.crmc.ri.gov/maps/shorechange/Bristol_Bristol_Narrows.pdf

T. Portsmouth

1. Patience Island. Online map:
http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Patience_Island.pdf

2. Prudence Island-Providence Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Providence_Point.pdf

3. Prudence Island-Potter Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Potter_Cove.pdf

4. Prudence Island-Prudence Neck. Online map:http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Prudence_Neck.pdf

5. Prudence Island-Prudence Park North. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Prudence_Park_North.pdf

6. Prudence Island-Prudence Park. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Prudence_Park.pdf

7. Prudence Island-South Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_South_Point.pdf

8. Prudence Island-Cliff Road. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Cliff_Road.pdf

9. Prudence Island-Sandy Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Sandy_Point.pdf

10. Prudence Island-Homestead. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Prudence_Homestead.pdf

11. Hog Island. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Hog_Island.pdf

12. Common Fence Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Common_Fence_Point.pdf

13. Bristol Ferry. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Bristol_Ferry.pdf

14. Mount Hope Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Mount_Hope_Bridge.pdf

15. Carnegie Abbey. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Carnegie_Abbey_Club.pdf

16. Portsmouth abbey. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Portsmouth_Abbey_School.pdf

17. Melville. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Melville.pdf

18. Dyer Island. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Dyer_Island.pdf

19. Carr Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Carr_Point.pdf

20. Island Park. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Island_Park.pdf

21. Portsmouth Park. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Portsmouth_Park.pdf

22. Portsmouth Center. Online Map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Portsmouth_Center.pdf

23. McCorrie Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_McCorrie_Point.pdf

24. The Glen. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_The_Glenn.pdf

25. Sandy Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Sandy_Point.pdf

26. Black Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Portsmouth_Black_Point.pdf

U. Middletown

1. Greene Lane. Online map: http://www.crmc.ri.gov/maps/shorechange/Middletown_Greene_Lane.pdf

2. Wanumetonomy. Online Map: http://www.crmc.ri.gov/maps/shorechange/Middletown_Wanumetonomy_Country_Club.pdf

3. Easton Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Middletown_Easton_Point.pdf

4. Second Beach. Online map:
http://www.crmc.ri.gov/maps/shorechange/Middletown_Second_Beach.pdf

5. Sachuest Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Middletown_Sachuest_Point.pdf

6. Third Beach. Online map:
http://www.crmc.ri.gov/maps/shorechange/Middletown_Third_Beach.pdf

7. Taggarts Ferry. Online map:
http://www.crmc.ri.gov/maps/shorechange/Middletown_Taggarts_Ferry.pdf

V. Newport

1. Coddington Cove. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Coddington_Cove.pdf

2. Rose Island. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Rose_Island.pdf

3. Coasters Harbor Island. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Coasters_Harbor_Island.pdf

4. Newport Harbor. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Newport_Harbor.pdf

5. Fort Adams. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Fort_Adams.pdf

6. Castle Hill. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Castle_Hill.pdf

7. Brenton Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Brenton_Point.pdf

8. Price Neck. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Price_Neck.pdf

9. Lands End. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Lands_End.pdf

10. The Breakers. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_The_Breakers.pdf

11. Cliff Walk. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Cliff_Walk_Forty_Steps.pdf

12. Easton Beach. Online map:
http://www.crmc.ri.gov/maps/shorechange/Newport_Easton_Beach.pdf

W. Jamestown

1. Beavertail. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Beavertail.pdf

2. Austin Hollow. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Austin_Hollow.pdf

3. Beaverhead. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Beaverhead.pdf

4. Dutch Island. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Dutch_Island.pdf

5. Dutch Island Harbor. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Dutch_Island_Harbor.pdf

6. Jamestown Bridge. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Jamestown_Bridge.pdf

7. Jamestown Shores. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Jamestown_Shores.pdf

8. Sand Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Sand_Point.pdf

9. Conanicut Point-West. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Conanicut_Point_West.pdf

10. Hope Island. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Hope_Island.pdf

11. Conanicut Point-East. Online map:
http://www.crmc.ri.gov/maps/shorechange/Jamestown_Conanicut_Point_East.pdf

12. Conanicut Park. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Conanicut_Park.pdf

13. Cranston Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Cranston_Cove.pdf

14. Potter Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Potter_Cove.pdf

15. Bryer Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Bryer_Point.pdf

16. Fort Wetherill. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Fort_Wetherill.pdf

17. Hull Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Hull_Cove.pdf

18. Mackerel Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Mackeral_Cove.pdf

19. Gould Island. Online map: http://www.crmc.ri.gov/maps/shorechange/Jamestown_Gould_Island.pdf

X. Tiverton

1. North Tiverton. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_North_Tiverton.pdf

2. Sakonnet River. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_North_Sakonnet_River.pdf

3. Sakonnet River Bridge. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_Sakonnet_River_Bridge.pdf

4. Nanaquaket Neck. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_Nannaquaket_Neck.pdf

5. Jacks Island. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_Jacks_Island.pdf

6. Sapowet Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_Sapowet_Point.pdf

7. Fogland Point: http://www.crmc.ri.gov/maps/shorechange/Tiverton_Fogland_Point.pdf

8. High Hill Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Tiverton_High_Hill_Point.pdf

Y. Little Compton

1. North Brown Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_North_Brown_Point.pdf

2. Brown Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Brown_Point.pdf

3. Church Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Church_Point.pdf

4. Church Cove. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Church_Cove.pdf

5. Sakonnet Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Sakonnet_Point.pdf

6. Warren Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Warren_Point.pdf

7. Briggs Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Briggs_Beach.pdf

8. Briggs Point. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_Briggs_Point.pdf

9. South Shore Beach. Online map: http://www.crmc.ri.gov/maps/shorechange/Little_Compton_South_Shore_Beach.pdf

Z. New Shoreham (Block Island)

1. Sandy Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_ClayHead-SandyPoint.pdf

2. Scotch Beach. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_ScotchBeach-ClayHead.pdf

3. Old Harbor. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_OldHarbor-ScotchBeach.pdf

4. Mohegan. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_Mohegan-OldHarbor.pdf

5. Great Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_Mohegan-GreatPoint-LewisPoint.pdf

6. Southwest Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_SWPoint-LewisPoint.pdf

7. Grace Point. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_SWPoint-GracePoint.pdf

8. New harbor Inlet. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_GracePoint-NewHarborInlet.pdf

9. West Beach. Online map:
http://www.crmc.ri.gov/maps/shorechange/BI_NewHarborInlet-Logwood.pdf

1.8 Sea Level Affecting Marshes Model (SLAMM) Maps

A. Rhode Island Coastal Communities

1. 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.

2. 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

3. 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 current wetland condition (as of 2010) followed by 1, 3, and 5-foot of sea level rise scenarios.

4. 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.

5. These maps are herein incorporated under § 1.2.2(C) of this Part. These maps are very large digital computer files that can be examined on-line at the Council's website: http://www.crmc.ri.gov/maps/maps_slamm.html.

B. Barrington

1. Community online map set: http://www.crmc.ri.gov/maps/maps_slamm/slamm_barrington.pdf

C. Bristol

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_bristol.pdf

D. Charlestown

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_charlestown.pdf

E. Cranston

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_cranston.pdf

F. East Greenwich

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_eastgreenwich.pdf

G. East Providence

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_eastprovidence.pdf

H. Jamestown

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_jamestown.pdf

I. Little Compton

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_littlecompton.pdf

J. Middletown

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_middletown.pdf

K. Narragansett

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_narragansett.pdf

L. Newport

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_newport.pdf

M. New Shoreham (Block Island)

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_newshoreham.pdf

N. North Kingstown

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_northkingstown.pdf

O. Pawtucket

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_pawtucket.pdf

P. Portsmouth

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_portsmouth.pdf

Q. Providence

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_providence.pdf

R. South Kingstown

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_southkingstown.pdf

S. Tiverton

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_tiverton.pdf

T. Warren

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_warren.pdf

U. Warwick

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_warwick.pdf

V. Westerly

1. Community online map set:
http://www.crmc.ri.gov/maps/maps_slamm/slamm_westerly.pdf