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TITLE 650 – COASTAL RESOURCES MANAGEMENT COUNCIL

CHAPTER 20 – COASTAL MANAGEMENT PROGRAM

SUBCHAPTER 00 – N/A

PART 3 – Salt Pond Region Special Area Management Plan

3.1 Authority

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 implement special area management plans.

3.2 Purpose

A. The purpose of these rules is to establish the Salt Pond Region Special Area Management Plan (SAMP) within the municipalities of Westerly, Charlestown, South Kingstown and Narragansett 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.

B. The regulations herein constitute the RICR regulatory component of the Salt Pond Region Special Area Management Plan (SAMP). For additional context and full understanding of this Part, please reference the additional chapters of the federally-approved Salt Pond Region SAMP available on the CRMC web site (www.crmc.ri.gov) for further information, including all other federally-approved RICRMP plans. The additional chapters of the Salt Pond Region SAMP provide the CRMC's findings and policies that form the basis and purpose of this Part. The other chapters of the Salt Pond Region SAMP should be employed in interpreting R.I. Gen. Laws § 46-23-1, *et seq*.

3.3 Definitions

A. Definitions for this Part are as follows:

1. "Cumulative effects" means the physical, biological, or chemical outcome of a series of actions or activities on the environment.

2. "Cumulative impacts" means the total effect on the environment of development activities and/or natural events taking place within a

geographic area over a particular period of time resulting from land use, water use and development activities or actions taking place anywhere within the salt pond region over any period of time. They are not restricted to on-site impacts, but may include off-site impacts which exist or are going to exist based on current land use planning. Cumulative impacts can result from traditionally unregulated changes in land and water uses.

3. "Experimental coastal erosion control methods" means unconventional methods that are intended to control erosion along coastal beaches or capture sand in shallow water depths parallel to the beach in order to restore beach profiles. These methods are defined as "experimental" because their effectiveness in controlling coastal erosion is highly variable. These methods have not been previously permitted and used in Rhode Island, but may have been used in other states with varying degrees of success. Such experimental coastal erosion control methods are temporary in nature and designed to provide short-term, localized erosion management while more comprehensive, long-term regional solutions are developed. Such long-term strategies will likely include the relocation (also known as retreat) of existing development and public infrastructure to more inland positions. By definition the term "experimental" refers to a product or method that is based on an untested idea or technique and has not yet been fully tested. Thus, inherent in the concept of "experimental" coastal erosion control methods is the understanding that the impact, results, success or failure of the untested methodologies:

    a. cannot be readily predicted;

    b. require special monitoring and supervision; and

    c. may require unilateral, summary termination if a methodology results in detrimental impacts. Experimental coastal erosion control methods do not include revetments, bulkheads, seawalls, groins, breakwaters or jetties.

4. "Lands of critical concern" means lands that are presently undeveloped or developed at densities of one residential unit per 120,000 square feet. These lands may be adjacent to or include one or more of the following:

    a. sensitive areas of the salt ponds that are particularly susceptible to eutrophication and bacterial contamination;

    b. overlie wellhead protection zones or aquifer recharge areas for existing or potential water supply wells;

    c. areas designated as historic/archaeologic sites;

d. open space;

e. areas where there is high erosion and runoff potential;

f. habitat for flora and fauna as identified through the RI Natural Heritage Program, large emergent wetland complexes, and U.S. Fish & Wildlife lands; and

g. fisheries habitat.

5. “Lands developed beyond carrying capacity” means lands that are developed at densities of one residential or commercial unit on parcels of less than 80,000 square feet, and frequently at higher densities of 10,000 square feet or 20,000 square feet. Intense development associated with Lands Developed Beyond Carrying Capacity is the result of poor land use planning and predates the formation of the Council. High nutrient loadings and contaminated runoff waters from dense development have resulted in a high incidence of polluted wells and increased evidence of eutrophic conditions and bacterial contamination in the salt ponds. Most of the OWTS in these areas predate RIDEM regulations pertaining to design and siting standards, and have exceeded their expected life span.

6. “Land suitable for development” means the net total acreage of the parcel, lot or tract remaining after exclusion of the areas containing, or on which occur the following protected resources: coastal features as defined within R.I. Gen. Laws Chapter 46-23 and in § 1.2.2 of this Subchapter; freshwater wetlands, as defined in § 1.1.2 of this Subchapter (see CRMC Rules and Regulations Governing the Protection and Management of Freshwater Wetlands in the Vicinity of the Coast, Part 2 of this Subchapter); and lands to be developed as streets and roads shall also be excluded from the calculated acreage of developable land.

7. “Nitrogen reducing technologies” means alternative wastewater treatment systems which reduce total nitrogen concentrations by at least 50%. Total nitrogen reduction is the annual mean difference by percentage between total nitrogen concentrations in the effluent of the septic or primary settling tank and the concentrations taken at the end of the treatment zone as defined by the specific technology.

8. “Salt pond region” means the environment within the surface watershed boundaries as delineated on the land use classification maps in § 3.44 of this Part.

9. “Self-sustaining lands” are lands that are undeveloped or developed at a density of not more than one residential unit per 80,000 square feet.

Within these areas, the nutrients discharged to groundwater by septic systems, fertilizers and other sources associated with residential activities may be sufficiently diluted to maintain on-site potable groundwater. However, the one residential unit per two acre standard is not considered sufficient to reduce groundwater nitrogen concentrations to levels which will prevent eutrophication, or mitigate for dense development in other portions of the watershed.

10. "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 discharge to tidal waters, coastal ponds or coastal wetlands.

11. "Tributary wetlands" means freshwater wetlands within the watershed that are connected via a watercourse to a coastal wetland and/or tidal waters.

12. "Underground storage tank" or "UST" means any one or more underground tanks and their associated components, including piping, used to contain an accumulation of petroleum product or hazardous material.

3.4 Procedures

A. The Rhode Island Coastal Resources Management Program

1. The Rhode Island Coastal Resources Management Program Red Book (Part 1 of this Subchapter) should be referred to for specific regulatory requirements on buffers, setbacks, subdivisions, recreational docks, barrier beach development, beach replenishment and any other activities which occur within the Salt Pond Region.

B. Application Process

1. The RICRMP has three categories of applications: Category A, B and A*:

a. Category A activities are routine matters and activities of construction and maintenance work that do not require review of the full Council if four criteria are met: buffer zone compliance, abutter agreement, and proper state and local certifications.

b. Category A* applications are put out to public notice for the benefit of the abutters to the affected property and local and state officials.

c. Category B applications are reviewed by the full Council and the applicant must prepare in writing an environmental assessment of

the proposal that addresses all of the items listed in § 1.3.1(A) of this Subchapter and any additional requirements for Category B applications listed for the activity in question.

2. A Category A review may be permitted for A* activities provided that the Executive Director of CRMC determines that all criteria within § 1.1.6(E) of this Subchapter and the relevant SAMP requirements and prerequisites are met. The proposed activity shall not significantly conflict with the existing uses and activities and must be considered to be a minor alteration with respect to potential impacts to the waterway, coastal feature, and areas within RICRMP jurisdiction.

3. The following activities which occur within the Salt Pond Region require a CRMC assent (application approval).

    a. Activities within 200 feet of a coastal feature. (Category A, A*, B)

    b. Watershed Activities (specific activities taking place within the SAMP watershed).

        (1) New subdivisions of 6 units or more, or re-subdivision for a sum total of 6 units or more on the property proposed after March 11, 1990 irrespective of ownership of the property or the length of time between when units are proposed. (Category B)

        (2) Development requiring or creating more than 40,000 square feet of total impervious surface. (Category A*/B)

        (3) Construction or extension of municipal, private residential hook-ups to existing lines, or industrial sewage facilities, conduits, or interceptors (excluding onsite wastewater treatment systems outside the 200' zone). Any activity or facility which generates or is 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. (Category A*/B)

        (4) Water distribution systems and supply line extensions (excluding private residential hook-ups to existing lines). (Category A*/B)

        (5) All roadway construction and upgrading projects. (Category A*/B)

(6) Development affecting freshwater wetlands in the vicinity of the coast. (Category A/B)

4. For projects involving the following, refer to § 1.3.3 of this Subchapter for the appropriate category.

   a. Construction or extension of public or privately owned sanitary landfills.

   b. New mineral or aggregate (sand/gravel) mining.

   c. Processing, transfer, or storage of chemical and hazardous materials.

   d. Electrical generating facilities of more than 40 megawatts capacity.

   e. All commercial in-ground petroleum storage tanks of more than 2,400 barrels capacity, all petroleum processing and transfer facilities [residential prohibited].

   f. Proposed new or enlarged discharges (velocity and/or volume) to tributaries, tidal waters, or 200' shoreline feature contiguous area.

   g. Solid waste disposal.

   h. Desalination plants.

5. In addition to the activities listed above, if the Council determines that there is a reasonable probability that the project may impact coastal resources or a conflict with the SAMP or RICRMP, a Council Assent will be required in accordance with all applicable sections of this program.

6. All applicants shall follow applicable requirements as contained in the RICRMP, including any specific requirements listed under water types in § 1.2.1 of this Subchapter, additional Category B requirements in § 1.3.1(A) of this Subchapter, the requirements and prerequisites in § 1.3.3 of this Subchapter for Inland Activities, and any regulations in this SAMP chapter.

7. Applicants proposing the above listed activities are required to submit the following with their applications:

   a. A stormwater management plan prepared in accordance with § 1.3.1(F) of this Subchapter and as described in the most recent version of the Rhode Island Department of Environmental Management Stormwater Management, Design and Installation Rules (250-RICR-150-10-8);

b. An erosion and sediment control plan (ESCP) prepared in accordance with the standards contained in § 1.3.1(B) of this Subchapter; and

c. An existing conditions site map and a proposed final site map as required in § 1.3.3 of this Subchapter and as specified in the section for site plan requirements in Department of Environmental Management Stormwater Management, Design and Installation Rules (250-RICR-150-10-8).

8. Preliminary determinations (PD) may be filed for any project by the municipality or the applicant. Preliminary determinations provide advice as to the required steps in the approval process, and the pertinent ordinances, regulations, rules, procedures and standards which may be applied to the proposed development project. Any findings and recommendations resulting from this preliminary review shall be utilized if the applicant returns to file a full assent request for the project, and will be forwarded to the Council as part of the staff reports for major development plans. Applicants for Category B activities within the SAMP watershed 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 the Council finds there is a potential to damage the coastal environment, the Council will require that suitable modification to the proposal be made.

C. Variances and special exceptions are granted by the Council under §§ 1.1.7 and 1.1.8 of this Subchapter, respectively.

1. Applicants desiring a variance from a standard must make the request in writing and address the six criteria as specified in § 1.1.7 of this Subchapter. The application is only granted an assent if the Council finds that the six criteria are met.

2. 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 the RICRMP only when the applicant has met the burdens of proof in § 1.1.8 of this Subchapter.

D. Coordinated Review with Municipalities

1. Under the Subdivision Review Act, one or more pre-application meetings shall be held for all major land developments or subdivision applications

(Land Development and Subdivision Review Enabling Act, R.I. Gen. Laws § 45-23-25 *et seq.*). Pre-application meetings may be held when a preliminary determination is filed with the CRMC, or informally when the municipality requests information from CRMC. All major land development projects as defined under the act and residential subdivisions of 6 units or more shall be considered major land development plans and should file a preliminary determination request with CRMC. The purpose of these meetings is to:

a. Identify and discuss major conflicts and possible design alterations or modifications to obviate conflicts.

b. Discuss the likely onsite impacts of alternatives or modifications and on the ecosystem as a whole.

c. Ensure that there is consensus among the regulatory agencies on any changes, and that conflicts with permit requirements do not arise.

E. Federal Consistency

1. Activities involving a direct or indirect federal activity (includes activities that require a federal permit, such as an Army Corps of Engineers Permit) also require Council review in accordance with the federal consistency process contained in 16 U.S.C. § 1456 (Coastal Zone Management Act). The Council has developed a handbook to assist those subject to federal consistency review. Persons proposing an activity involving a direct or indirect federal activity are referred to the most recent version of this handbook. See: http://www.crmc.ri.gov/regulations/Fed_Consistency.pdf

F. Coastal Nonpoint Pollution Control Program

1. Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (16 U.S.C. § 1455(b)) requires each coastal state with a federally approved coastal management program to develop and submit a Coastal Nonpoint Pollution Control Program (CNPCP) to the EPA and the National Oceanic and Atmospheric Administration (NOAA) by July 1995. Rhode Island's CNPCP, developed by the RIDEM, the Department of Administration and the CRMC, applies to four general land use activities: agriculture, urban (new development, septic systems, roads, bridges, highways, etc.), marinas, and hydro-modifications. There are also management measures to protect wetlands and riparian areas, and to promote the use of vegetative treatment systems.

3.4.1 Municipal Responsibility

A. The town officials and administration involved in construction, approval of construction and/or regulations regarding the zoning, density, and build-out of development are the municipal arm of this SAMP.

1. Local authorities are responsible for applying the regulations and land use policies to ensure proper application of this plan. Towns should exercise particular consideration of subdivisions because of the potential impacts from stormwater, sewage disposal, infrastructure demands, and decreased open space.

2. The CRMC evaluates projects that fall under this plan as referenced earlier, even if development is not completed all at once. A developer still falls under the CRMC major subdivision review conditions upon additional construction. Stormwater concerns, sewage disposal concerns, buffers, etc. may be difficult to accommodate with the addition of new lots. Therefore, it is important for municipalities to apply SAMP regulations to initial development of a subdivision.

3.4.2 Water Quality Policies

A. The evidence presented in Chapter 3 Water Quality of this SAMP indicates that water quality continues to be degraded in the Salt Pond Region due to existing residential sources of nitrogen and bacteria. Although research conducted at the University of Rhode Island suggests a correlation between housing density and the symptoms of eutrophication in the salt ponds, there is no clear nitrogen loading threshold which CRMC can apply to each individual activity and development. Accordingly, CRMC addresses nitrogen loading through conservative land use regulations and nitrogen reducing technologies.

B. The installation and operation of nitrogen removal systems is permissible under Department of Environmental Management Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems (250-RICR-150-10-6). CRMC requires nitrogen removal systems as noted in Table 1 in §§ 3.4.2(E) and in 3.4.3 of this Part.

C. In addition to the impacts of nitrogen, other nonpoint sources of pollution like sediment from erosion and road runoff, petroleum hydrocarbons from vessel engines and road salts are also a concern. As impervious areas increase within the salt pond watersheds these pollutants have a greater potential to reach coastal waters.

D. Table 1 in § 3.4.2(E) of this Part summarizes the land use classification system, with the requirements for nitrogen reducing technologies, buffer zone and setback requirements. The CRMC land use classification maps which regulate

land use densities and other activities in the SAMP region follow in § 3.4.4 of this Part.

E. Table 1: CRMC land-use classification requirements for density, setbacks, buffer zones and nitrogen reducing technologies for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and 3.4(B)(4) of this Part.

Land-use classification	Description	Coastal buffer zone requirement [1]	Construction setback requirement [1]	OWTS setback requirement [1]	Nitrogen reducing technology requirement [1,2]
Developed beyond carrying capacity	Lands developed or undeveloped at < 80,000 square feet [SE or Var]	Coastal buffer based on § 1.1.11 of this Subchapter [Var]	Coastal buffer plus 25 feet	Nitrogen reducing technology required [SE, Var]	New OWTS installations or alteration [4] [SE, Var]
Critical concern	Lands developed or undeveloped at 120,000 square feet and have sensitive salt pond or watershed resources [SE or Var]	200 feet [SE or Var]	Coastal buffer plus 25 feet	225 feet [SE, Var]	Lands subdivided after adoption of SAMP that do not meet the CRMC density requirement and substandard lots of record [SE, Var].
Self-sustaining	Lands developed, undeveloped at 80,000 square feet [SE or Var]	150 feet [SE or Var]	Coastal buffer plus 25 feet	200 feet [SE, Var]	Lands subdivided after adoption of SAMP that do not meet the CRMC

					density requirement and substandard lots of record [SE, Var]

[SE or Var] indicates if relief from the requirement or regulations requires a special exception, variance or both.

1 – CRMC land use classification requirements for density, setbacks, buffer zones and nitrogen reducing technologies are for activities within CRMC jurisdiction (See §§ 3.4(A)(1) and 3.4(B)(1) of this Part)

2 – A special exception is required for relief from the density requirement, coastal buffer, construction setback, OWTS setback or nitrogen reducing technology requirement unless the lot is pre-platted and cannot accommodate the requirement.

3 – Nitrogen reducing technologies are defined in § 3.3 of this Part.

4 – As defined by Department of Environmental Management Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems (250-RICR-150-10-6)

3.4.3 Land Use Classification for Watershed Protection (formerly § 920.1)

A. Self-Sustaining Lands

1. Policies and Regulations

a. Subdivisions as defined in § 1.1.2 of this Subchapter shall not exceed an average density of one residential unit per 80,000 square feet for Self-Sustaining Lands. The allowable number of units in conformance with this standard shall be calculated on the basis of available land suitable for development as defined in § 3.3 of this Part. The division of a tract, lot or parcel not subject to municipal regulation under the provisions of R.I. Gen. Laws Chapter 45-23 *et seq*., for the reasons set forth therein shall remain subject to the jurisdiction of the requirements of R.I. Gen. Laws Chapter 46-23 *et seq*. and Part 1 of this Subchapter and this Part.

b. The number of allowable units in a cluster shall be calculated on the basis of lands suitable for development as defined in § 3.3 of this Part within the subdivision and in accordance with all local ordinances.

c. Any major land development project or any major subdivision of land (as defined in R.I. Gen. Laws Chapter 45-23 *et seq*.) within Self-Sustaining Lands, occurring after November 27, 1984, must meet the minimum density requirement of one residential unit per 80,000 square feet. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter. Lands which were subdivided prior to November 27, 1984 and do not meet the CRMC density requirement specified in § 3.4.3(A)(1)(a) of this Part require a variance as defined in § 1.1.7 of this Subchapter.

d. Nitrogen reducing technologies as defined in § 3.3 of this Part are required for any lands subdivided after April 12, 1999 that do not meet the CRMC density requirement (80,000 square feet) for activities within 200' of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to April 12, 1999 and cannot accommodate the requirement or the DEM has issued an OWTS permit supported by clear and convincing scientifically valid evidence submitted by the applicant pursuant to the OWTS Rules that demonstrates wastewater discharged from

the site will not recharge groundwater flowing to the salt ponds. A nitrogen reducing technology cannot be used as mitigation to increase dwelling densities on parcels which can support the density requirement.

e. A minimum 200-foot setback from the salt ponds, their tributaries, and coastal wetlands, including tributary wetlands, is required for OWTS in Self Sustaining Lands for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to April 12, 1999 and cannot accommodate the requirement.

f. A 150-foot buffer zone from the salt ponds, their tributaries, and coastal wetlands, including tributary wetlands, is required for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part in Self Sustaining Lands. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to November 27, 1984 and cannot accommodate the requirement.

g. The installation of sewers is prohibited, unless all of the following conditions are met:

(1) the property meets the RIDEM regulatory siting requirements for the installation of a conventional OWTS;

(2) the proposal is agreeable to both the town and the CRMC;

(3) a deed restriction is attached to the property ensuring no further subdivision; and

(4) the properties to be sewered are within 500 feet of an existing sewer line or are within a subdivision which abuts the sewer easement.

h. Public water service is considered a low priority. When new public water supplies are proposed, the source wells and the distribution lines shall remain within a single watershed and not divert groundwater from one salt pond watershed to another.

i. The Council recognizes that in areas abutting the salt ponds, their tributaries and other critical resource areas, existing nitrogen

reducing technologies may not be sufficient to reduce groundwater nitrogen concentrations to levels which will prevent further eutrophication in the salt ponds. If new technology improves the nitrogen removal capability of these systems and new research indicates the need for further nitrogen removal, CRMC will reevaluate the need for increased nitrogen removal.

2. Municipal policies

a. Some lands, as presently zoned by the towns, may not meet the density requirements for Self-Sustaining Lands (80,000 square feet) or Lands of Critical Concern (120,000 square feet). In such cases the CRMC will require the towns to be consistent with CRMC density requirements, where possible, during CRMC review of town zoning changes to the Comprehensive Plan.

b. The Council recommends the use of cluster development as a means to preserve open space, agricultural lands and aesthetic qualities, reduce impervious surfaces and the costs of development, and minimize the environmental impacts of development.

c. For activities outside CRMC jurisdiction but within the SAMP boundaries, CRMC strongly recommends that the towns adopt CRMC regulations for OWTS setbacks and nitrogen reducing technologies as identified in Table 1 of § 3.4.2(E) of this Part.

d. The Council recommends the use of wastewater management districts and the protocols established in the Rhode Island Septic System Inspection Handbook (see: http://www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf) for septic system inspection and pump-out to limit the occurrence of failed on-site sewage disposal systems.

B. Lands of Critical Concern

1. Policies and Regulations

a. Subdivisions as defined in § 1.1.2 of this Subchapter shall not exceed an average density of one residential unit per 120,000 square feet for Lands of Critical Concern. The allowable number of units in conformance with this standard shall be calculated on the basis of available land suitable for development as defined in § 3.3 of this Part. The division of a tract, lot or parcel not subject to municipal regulation under the provisions of R.I. Gen. Laws

Chapter 45-23 *et seq*., for the reasons set forth therein shall remain subject to the jurisdiction of the requirements of R.I. Gen. Laws Chapter 46-23 *et seq*. and Part 1 of this Subchapter and this Part.

b. The number of allowable units in a cluster shall be calculated on the basis of lands suitable for development as defined in § 3.3 of this Part within the subdivision and in accordance with all local ordinances.

c. Any major land development project or any major subdivision of land (as defined in R.I. Gen. Laws Chapter 45-23 *et seq*.) within Lands of Critical Concern, occurring after November 27, 1984, must meet the minimum density requirement of one residential unit per 120,000 square feet. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter. Lands which were subdivided prior to November 27, 1984 and do not meet the CRMC density requirement specified in § 3.4.3(B)(1)(a) of this Part require a variance as defined in § 1.1.7 of this Subchapter.

d. Nitrogen reducing technologies as defined in § 3.3 of this Part are required for any lands subdivided after April 12, 1999 that do not meet the CRMC density requirement for Lands of Critical Concern (120,000 square feet) for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to April 12, 1999 and cannot accommodate the requirement or the DEM has issued an OWTS permit supported by clear and convincing scientifically valid evidence submitted by the applicant pursuant to the OWTS Rules that demonstrates wastewater discharged from the site will not recharge groundwater flowing to the salt ponds. A nitrogen reducing technology cannot be used as mitigation to increase dwelling densities on parcels which can support the density requirement.

e. Lands of Critical Concern which are also zoned for 80,000 square feet by municipal zoning regulations may be developed at densities of one residential unit per 80,000 square feet only if a nitrogen reducing technology is used as the method of sewage removal. In the event that a property has frontage on a sewer line then hooking up to the sewer will be mandatory.

f. A minimum 225-foot setback from the salt ponds, their tributaries, and coastal wetlands, including tributary wetlands, is required for

OWTS in Lands of Critical Concern for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to April 12, 1999 and cannot accommodate the requirement.

g. A 200-foot buffer zone from the salt ponds, their tributaries, and coastal wetlands, including tributary wetlands, is required for all development activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part in Lands of Critical Concern. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to November 27, 1984 and cannot accommodate the requirement.

(1) Activities permitted within the buffer zone may include various management options consistent with CRMC's buffer zone management guidance, and, in Type 2 waters, one dock per lot of record as of November 27, 1984.

(2) Activities prohibited within the buffer strip include sewage disposal systems or leach fields, surfaced roadways, culverts, bulkheads, riprap and lawns. Fertilizers shall not be applied within the buffer zones except where necessary to establish vegetation in areas that are eroding or need to be restored.

h. The installation of sewers is prohibited, unless all of the following conditions are met:

(1) the property meets the RIDEM regulatory siting requirements for the installation of a conventional onsite sewage disposal system;

(2) the proposal is agreeable to both the town and the CRMC;

(3) a deed restriction is attached to the property ensuring no further subdivision; and

(4) the properties to be sewered are within 500 feet of an existing sewer line or are within a subdivision which abuts the sewer easement.

i. Public water service is considered a low priority. When new public water supplies are proposed, the source wells and the distribution lines shall remain within a single watershed and not divert groundwater from one salt pond watershed to another.

j. The Council recognizes that in areas abutting the salt ponds, their tributaries and other critical resource areas, existing nitrogen reducing technologies may not be sufficient to reduce groundwater nitrogen concentrations to levels which will prevent further eutrophication in the salt ponds. If new technology improves the nitrogen removal capability of these systems and new research indicates the need for further nitrogen removal, CRMC will reevaluate the need for increased nitrogen removal.

2. Municipal policies

a. Some lands, as presently zoned by the towns, may not meet the density requirements for Lands of Critical Concern (120,000 square feet). In such cases the CRMC will require the towns to be consistent with CRMC density requirements, where possible, during CRMC review of town zoning changes to the Comprehensive Plan.

b. The Council recommends the use of cluster development as a means to preserve open space, agricultural lands and aesthetic qualities, reduce impervious surfaces and the costs of development, and minimize the environmental impacts of development.

c. Lands of Critical Concern should be priority areas for additional measures to minimize pollution loadings from development through municipal, state or federal acquisition for open space and conservation easements and/or tax relief and aquifer protection ordinances.

d. For activities outside CRMC jurisdiction but within the SAMP boundaries, CRMC strongly recommends that the towns adopt CRMC regulations for OWTS setbacks and nitrogen reducing technologies as identified in Table 1 in § 3.4.2(E) of this Part.

e. The Council recommends the use of wastewater management districts and the protocols established in the Rhode Island Septic System Inspection Handbook (see: http://www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf) for septic

system inspection and pump-out to limit the occurrence of failed on-site sewage disposal systems.

C. Lands Developed Beyond Carrying Capacity

1. Policies and Regulations

a. Nitrogen reducing technologies as defined in § 3.3 of this Part are required for all new installations or replacement of existing OWTS for activities within 200 feet of a coastal feature and all watershed activities as defined in §§ 3.4(B)(3) and (4) of this Part within Lands Developed Beyond Carrying Capacity. Relief from this regulation requires a special exception as defined in § 1.1.8 of this Subchapter, unless the lands were subdivided prior to April 12, 1999 and cannot accommodate the requirement or the DEM has issued an OWTS permit supported by clear and convincing scientifically valid evidence submitted by the applicant pursuant to the OWTS Rules that demonstrates wastewater discharged from the site will not recharge groundwater flowing to the salt ponds.

b. Regular maintenance and, when necessary, the upgrading of OWTS are of the highest priority in unsewered densely developed areas.

c. Densely developed lands on Great Island and Harbor Island in Narragansett and at the northern end of Point Judith Pond in South Kingstown are in close proximity to existing sewer lines; in these areas extension of sewer service is a priority.

d. Public water service is a high priority for Lands Developed Beyond Carrying Capacity because of the high incidence of poor groundwater quality in these densely developed areas. When new public water supplies are proposed, the supply wells and service areas for public water supplies shall be kept within individual watersheds. The export of groundwater from one watershed to another should be minimized.

e. For existing development, buffer zones along the perimeter of salt ponds, their tributaries and tributary wetlands, and other shoreline features shall be required in accordance with § 1.1.11 of this Subchapter. For new development, buffers shall be an absolute minimum of 25 feet in width. Variances to the buffer standard shall be consistent with the conditions for relief in § 1.1.11 of this Subchapter.

f. The Council recognizes that in areas abutting the salt ponds, their tributaries and other critical resource areas, existing nitrogen reducing technologies may not be sufficient to reduce groundwater nitrogen concentrations to levels which will prevent further eutrophication in the salt ponds. If new technology improves the nitrogen removal capability of these systems and new research indicates the need for further nitrogen removal, CRMC will re-evaluate the need for increased nitrogen removal.

2. Municipal policies

a. Undeveloped areas previously platted at extremely high densities are priority areas for amendments to zoning ordinances and other actions to provide for reduced density, i.e., a minimum of 80,000 square feet.

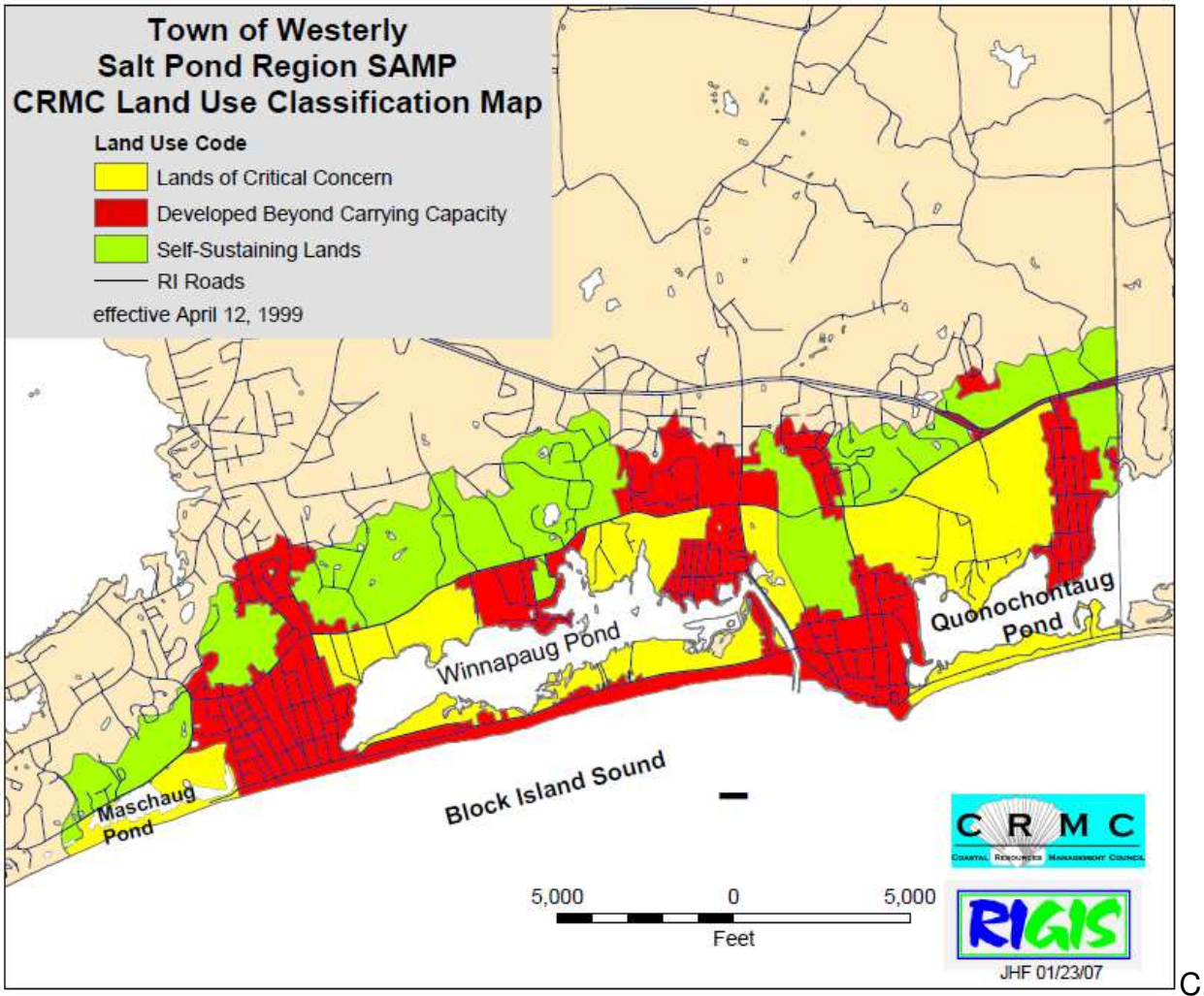
b. For activities outside CRMC jurisdiction but within the SAMP boundaries, CRMC strongly recommends that the towns adopt CRMC regulations for nitrogen reducing technologies as identified in Table 1 in § 3.4.2(E) of this Part.

c. The Council recommends the use of wastewater management districts and the protocols established in the Rhode Island Septic System Inspection Handbook (see: http://www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf) for septic system inspection and pump-out to limit the occurrence of failed on-site sewage disposal systems.

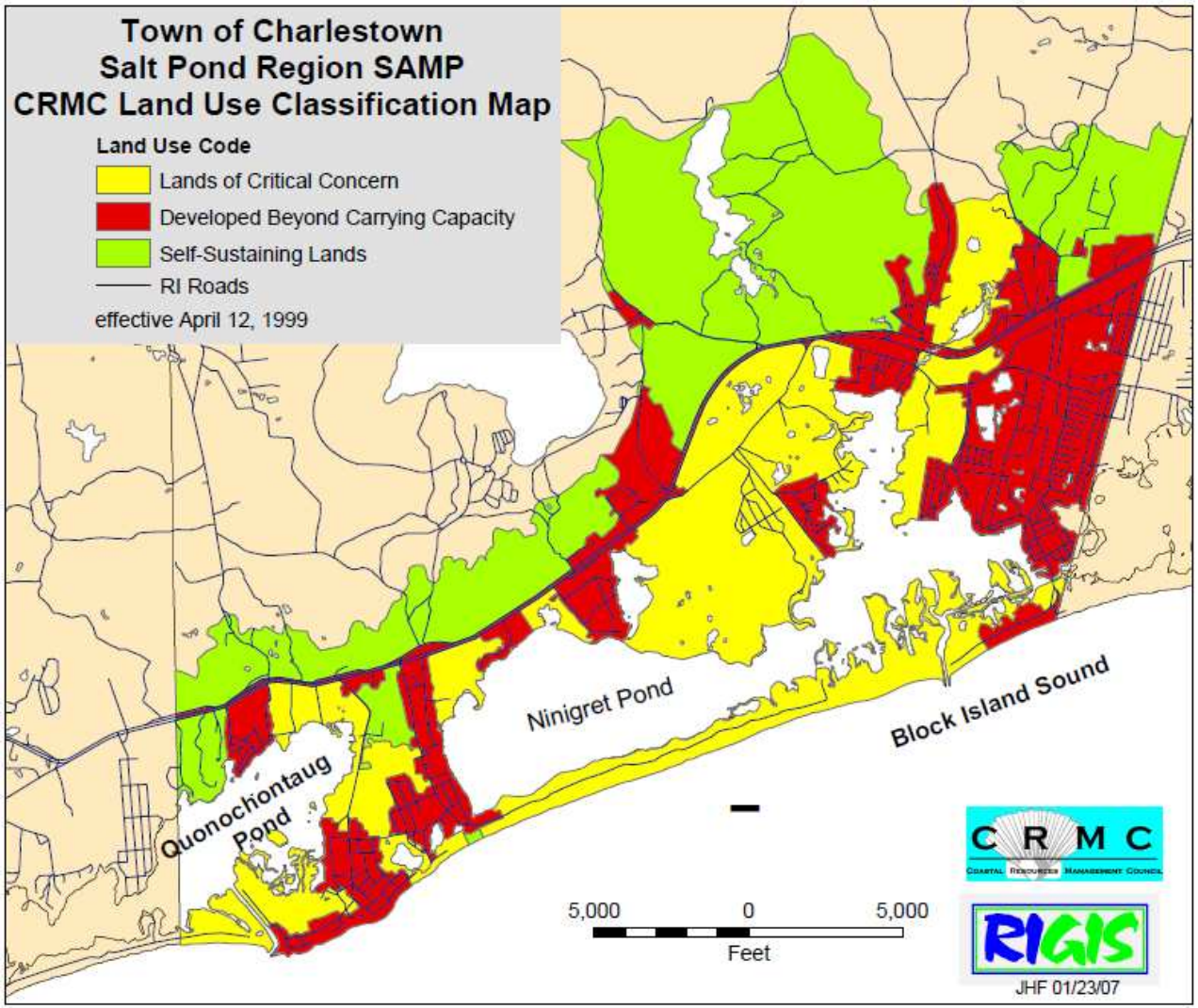
3.4.4 Land Use Classification System Maps

A. User-friendly, high resolution CRMC land use classification maps for the Salt Pond Region SAMP communities of Westerly, Charlestown, South Kingstown and Narragansett (Figures 1 through 4 below) are available on the CRMC web site. See: http://www.crmc.ri.gov/samp_sp.html.

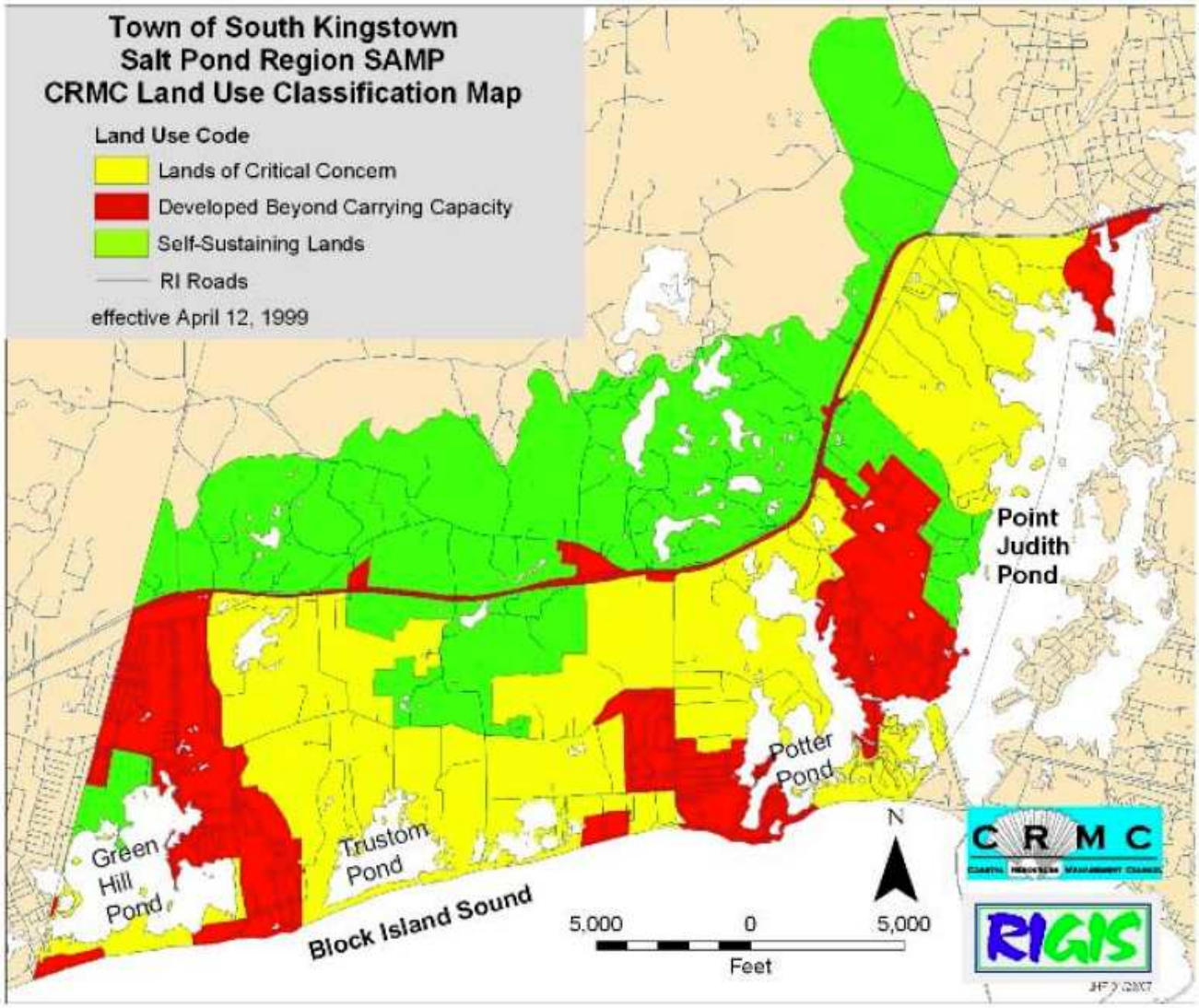
B. Figure 1: Land Use Classification System for the Town of Westerly



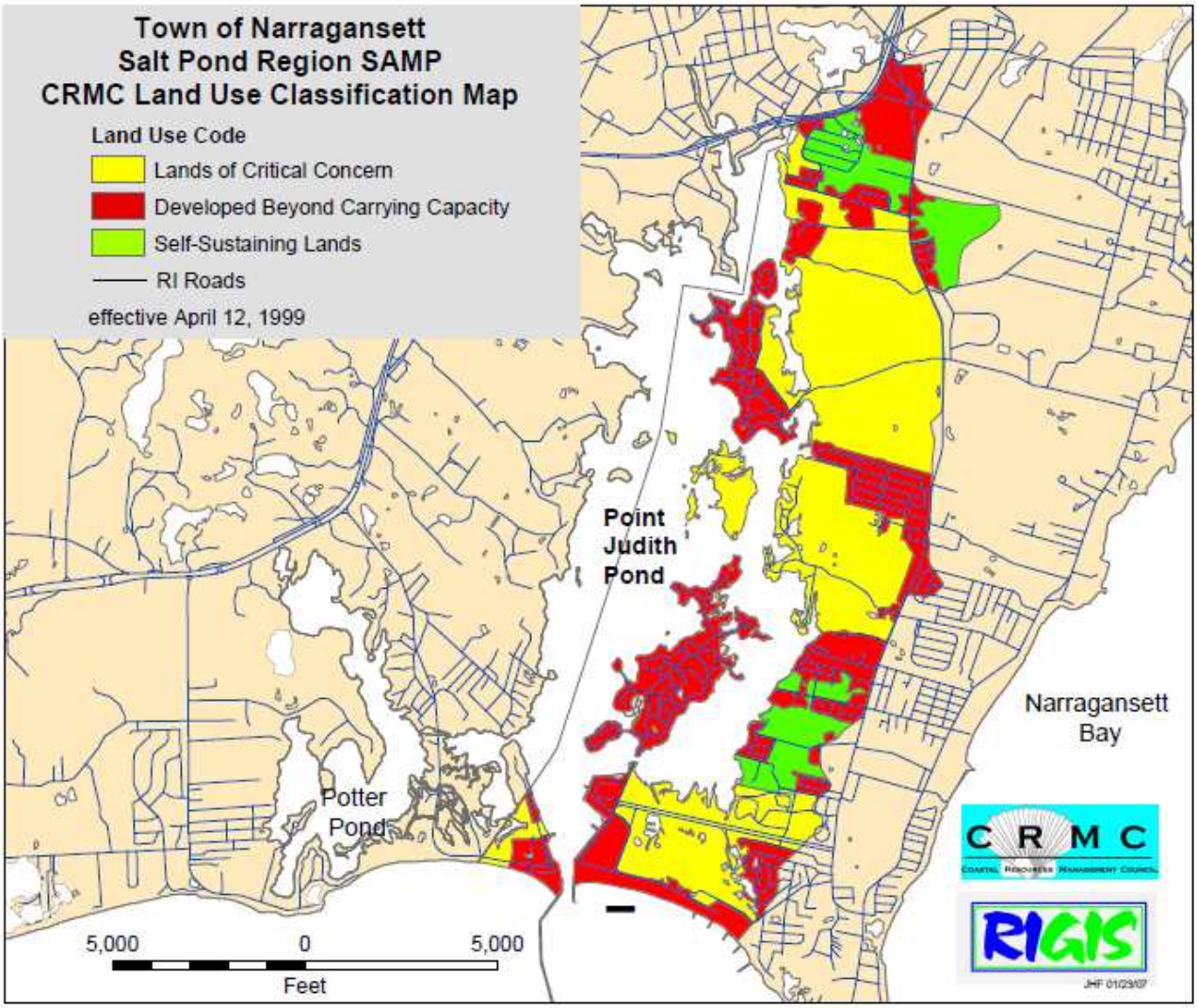
C. Figure 2: Land Use Classification System for the Town of Charlestown.


Town of Charlestown
Salt Pond Region SAMP
CRMC Land Use Classification Map
Land Use Code
Lands of Critical Concern
Developed Beyond Carrying Capacity
Self-Sustaining Lands
RI Roads
effective April 12, 1999
Ninigret Pond
Block Island Sound
Quonochontaug Pond
5,000
0
5,000
Feet
C R M C
Coastal Resources Management Council
RIGIS
JHF 01/23/07

D. Figure 3: Land Use Classification System for the Town of South Kingstown.



E. Figure 4: Land Use Classification System for the Town of Narragansett.



3.4.5 Control of Pollution from Storage Tanks

A. Policies and Regulations

1. Except for propane and compressed natural gas, burial of domestic USTs is prohibited in the Salt Pond Region.

2. Commercial USTs must meet all current state standards and applicants must apply for a CRMC permit. Applicants must demonstrate an adequate construction design and means for monitoring for leakage, and shall replace all leaking tanks according to RIDEM regulations.

3.4.6 Oil Spills

A. Contingency Plans

1. Oil spills shall be treated in accordance with the RIDEM Emergency Response Plan. See http://www.dem.ri.gov/programs/emergencyresponse/erp.php#sec6_2.

2. Point Judith and Potter Ponds. A spill in lower Point Judith Pond should be contained within the port area. However, there are both substantial fishing boat traffic and strong currents in the port which will complicate oil cleanup operations. In many cases the best practical containment strategy if oil enters the lower pond will be to divert oil to the shore on the Jerusalem side of the channel. Every effort shall be made to keep the oil from entering Potter Pond through Gooseberry Hole or East Pond under the Great Island Bridge.

3. Ninigret and Green Hill Ponds. Every effort shall be made to deflect an offshore oil spill away from the breachway and the ponds and toward the ocean beaches. The fast currents in the breachway make it a difficult place to deploy booms or mops. If oil cannot be kept out of the breachway, it should be contained along the banks just inside the breachway where the channel widens and currents are slower. A boat launch ramp and access for heavy equipment are available from the parking lot on the east side. Sand from the area should be used to block small channels and create impoundments.

4. Trustom and Cards Ponds. Since these ponds are only temporarily breached, there is less danger of oil entering them. However, if a spill occurs when the breachways are open, every effort should be made to fill them in with sand from the adjacent beach.

5. Quonochontaug Pond. Every effort should be made to deflect an offshore oil spill from the breachway of the pond, and toward the ocean beaches. The fast currents in the breachway and the boulders off the mouth make it a difficult place to deploy booms. If oil cannot be kept out of the breachway, containment booms and mops may be deployed in the dogleg of the breach or where the breachway empties into the pond and currents start to dissipate. Oil should be deflected toward the tidal creaks in nearby salt marshes instead of being allowed to spread throughout the pond. Launching facilities for small boats and access for heavy equipment are available on the eastern side of the breachway.

6. Winnapaug Pond. Every effort should be made to deflect an offshore oil spill from the breachway of the pond, and toward the ocean beaches. The fast currents in the breachway (4 knots) make it a difficult place to deploy booms for containment and cleanup. If oil cannot be kept out of the breachway, efforts should be made to use booms or barriers to protect the

large salt marsh along the pond's southern shoreline and to prevent the oil from spreading westward into the large basin of the pond.

3.4.7 Geologic Processes

A. Dredging Navigation Channels and Basins

B. Policies

1. Dredging in the salt ponds is appropriate for the breachway sediment basins and as needed for habitat restoration in the deltas.

2. It is compatible with this plan to manage the level of water in Maschaug Pond and to remove excess stormwater in a manner which does not threaten the stability of the beach.

3. Improvement dredging for navigation in Point Judith Pond shall be confined to the harbor area designated on the South Kingstown / Narragansett Port of Galilee water type classification map in § 1.6(G) of this Subchapter.

4. Applicants for Assents to dredge in the port area shall demonstrate to the CRMC that the action will not cause significant sedimentation outside the Point Judith Port area, particularly in Bluff Hill Cove and the segment of Potter Pond adjacent to the Gooseberry Hole inlet.

5. The preferred option for the disposal of sands dredged from lower Point Judith Pond is replenishment of the Sand Hill Cove and East Matunuck beaches in the configuration shown in Figure 5 of § 3.4.7 of this Part (below).

6. In Potter Pond, non-navigational dredging shall be limited to habitat restoration and enhancement. Dredging to restore flow at the following sites is a priority, since it will restore water circulation and salt marsh habitat in areas adversely affected by port filling:

    a. Potter Pond-Succotash Salt Marsh tidal channels

    b. Segar Cove-Seaweed Cove Causeway

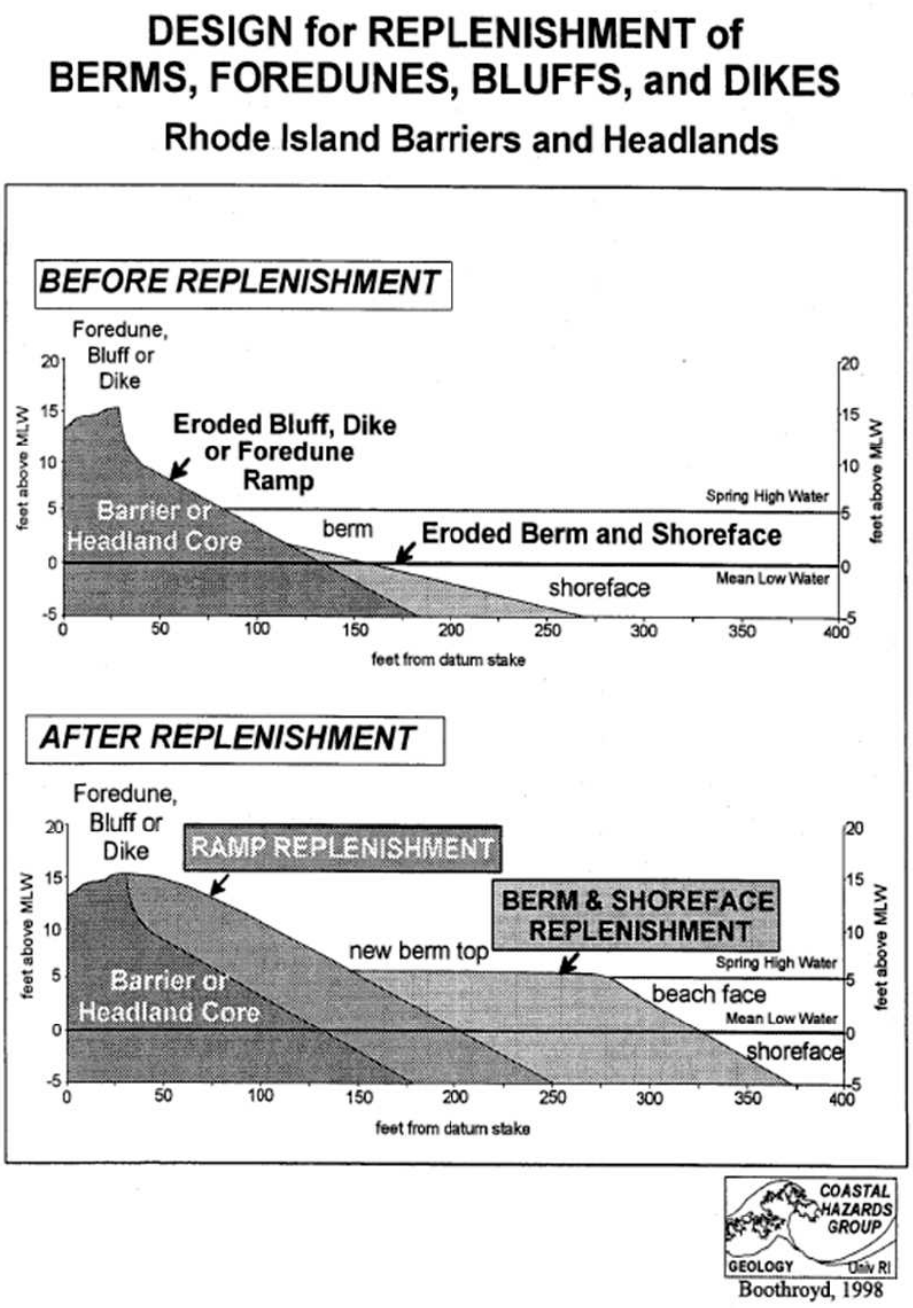
    c. Tone Bridge over Buckie Brook

7. Breaching of coastal ponds in general, may be appropriate under various circumstances to restore habitat and improve drainage. Breaching requests will be handled on a site-by-site basis and evaluated on proposed benefits versus drawbacks, including impacts due to the time of

year. RIDEM Fish and Wildlife shall be consulted for any proposed breaching project.

8. Other habitat restoration and enhancement projects shall be undertaken only after an evaluation of the impacts has been made by a competent coastal geologist, biologist, and engineer, and it is demonstrated that the project conforms to the management goals for this Plan.

C. Figure 5: Design for Berm, Foredune, Bluff, and Dike Replenishment.



D. Prohibitions

1. All dredging for navigational purposes is prohibited in Potter Pond.

2. In Ninigret and Green Hill Ponds, non-navigational dredging shall be prohibited unless limited to habitat restoration and enhancement. Such

projects may be undertaken only after an evaluation of the impacts has been made by a competent coastal geologist and biologist and it is demonstrated that the project conforms to the objectives of this Plan.

3. All dredging activities in or adjacent to Cards Pond are prohibited by the Council except where the purpose is to:

   a. permit more efficient seasonal flushing between Cards Pond and the ocean, or

   b. improve or restore fish habitats in Cards Pond Stream. Habitat restoration may be undertaken only after an evaluation of the impacts has been made by a competent coastal geologist and biologist and it is demonstrated that the project conforms to the objectives of this Plan.

E. Standards

1. Maintenance dredging of the channel from Snug Harbor to Ram Point in Point Judith Pond shall be limited to the channel as shown on NOAA Nautical Chart 13219 with a maximum depth of 5 feet below mean low water. Particular care shall be taken to avoid damage to known winter flounder spawning sites (See Chapter 5 of this SAMP) in the upper pond. Dredging of the channel and the upper pond shall be avoided during the January through March flounder spawning season.

2. Bulkheads and piers may be constructed on state-owned property north of the state pier at Jerusalem and widening the present channel to the west sufficiently to service new docks along the bulkhead. A new bulkhead shall not extend eastward of the mean high-water mark, since filling will force the existing ebb spit farther into the navigation channel. Depths of the access channel and new berthing areas shall not exceed 15 feet.

3. The access channel to Snug Harbor and High Point may be increased to a depth of 15 feet.

4. The present Galilee turning basin may be extended to the west and south as indicated on the South Kingstown / Narragansett Port of Galilee water type classification map in § 1.6(G) of this Subchapter.

5. The channel along the north side of the Galilee bulkhead may be deepened to a maximum of 10 feet to permit berthing of larger vessels.

6. Bulkheads or piers may be constructed on the state-owned property on Great Island (see Figure 9-5) and the area between the bulkhead and the channel dredged to a depth not exceeding 10 feet.

7. Channel dredging in Ninigret Pond shall be limited to the restoration and maintenance of a single channel no more than 30 feet wide and 3 feet deep up the center of the tidal channel and across the flood-tidal delta, and of a channel no more than 2 feet deep and 12 feet wide to Creek Bridge through Tockwotten Cove. Such channels must follow the winding path of the major existing channel at that time. The channel across the tidal delta may be maintained only when the catch basin has accumulated less than 50 percent of its capacity of sand.

3.4.8 Living Resources and Critical Habitats

A. Introduction

1. The Findings of Fact as presented in Chapter 5 of this SAMP, Living Resources and Critical Habitats identify the history of overfishing and habitat degradation in the Salt Pond Region. There are over a hundred species of finfish and shellfish which utilize the salt ponds at some stage in their life cycle. The most popular species, the quahogs, oysters and flounder are all declining. The habitat on which these fish and shellfish species depend is also declining; eelgrass loss in Ninigret Pond alone was 40 percent over the last thirty-two years (Short *et al*., 1996). Other habitat fragmentation occurs within the salt pond watersheds and is impacting wildlife species like the Piping Plover, a federally listed endangered species.

B. Policies

1. It is CRMC policy to consider the trends and status of fish and wildlife species and their habitats within the region when making decisions about development and recreational uses.

2. Winter flounder spawning grounds shall not be disturbed during the December-May spawning season.

3. All shellfish areas in the salt ponds are shellfish management areas and as such, are a high priority for protection.

4. The Rhode Island Natural Heritage Program must be consulted by the applicant if the project falls within a critical habitat. If a species is listed on the RIDEM rare and endangered list, on the federal list, or both, RIHPC

will be contacted to provide stipulations, recommendations and/or comments to the CRMC before the Council issues a decision.

5. It is the Council's policy to manage and protect submerged aquatic vegetation (SAV) from loss and degradation. Projects proposed in tidal and non-tidal waters will be evaluated by CRMC staff on a case-by-case basis. If CRMC permitting staff determines that SAV is present, the applicant may be required to provide additional information regarding this resource and the project's likely impact, as well as mitigation of impacts.

6. Breaching should be allowed to occur naturally with no building of high blocking dunes to keep water out.

7. The black duck is targeted through the North American Waterfowl Plan and RIDEM Fish and Wildlife Species as a high priority species for conservation. This species and its vegetated habitat therefore have a high priority for protection by the Council.

8. The Council shall consider project impacts on waterfowl species including their habitat and nutritional resources such as vegetation, shellfish, and fish.

9. Limited Phragmites control programs may be approved by the Council in areas that are degraded due to Phragmites overrun.

10. Buffer zones will be the maximum width under § 1.1.11 of this Subchapter in areas that abut Factory Pond Brook to protect anadromous fish runs.

C. Prohibitions

1. Filling of, or other alterations to coastal wetlands (See § 1.2.2(D) of this Subchapter) are prohibited within the Salt Pond Region. An alteration to a coastal wetland is defined in § 1.1.2 of this Subchapter Activities which shall not be considered alterations include, but shall not be limited to: minor disturbances associated with the approved construction or repair of shoreline protection facilities in accordance with § 1.3.1(G) of this Subchapter, minor disturbances associated with approved residential docks and walkways constructed in accordance with standards set forth in § 1.3.1(D) of this Subchapter, insignificant or minor cutting or pruning of vegetation in accordance with a Council approved management or restoration plan, and approved mosquito population control programs.

2. Alteration or disturbance of Piping Plover habitats during nesting is prohibited.

3. Dredging is prohibited in winter flounder areas during spawning season and if anadromous fish restoration projects are ongoing.

E. Standards

1. Excavation of any mudflats or other inter- or sub-tidal sediments requires consultation with RIDEM Division of Marine Fisheries Management.

2. Prior to any dredging project the applicant may be required to remove any shellfish present in the sediments and transplant them to a RIDEM/CRMC approved site. Appropriate sites include RIDEM spawner sanctuaries or sites deemed appropriate by Marine Fisheries Council or RIDEM Fish and Wildlife and CRMC.

3.4.9 Storm Hazards

A. Policies

1. Reconstruction After Storms

a. When catastrophic storms, flooding, and/or erosion has occurred at a site under Council jurisdiction, and there is an immediate threat to public health and safety or immediate and significant adverse environmental impacts, the Executive Director may grant an Emergency Assent under § 1.1.12 of this Subchapter.

b. A CRMC Assent is required of all persons proposing to rebuild shoreline structures which have been damaged by storms, waves, or other natural coastal processes in the Salt Pond Region. When damage to a structure is greater than 50 percent, post-storm reconstruction shall follow all standards and policies for new development in the area in which it is located and according to the CRMC.

c. Setback requirements from § 1.1.7 of this Subchapter shall be applied.

d. All construction within Federal Emergency Management Agency (FEMA) Flood Zones must follow the required construction standards for the flood zone in which the structure is located. Municipal officials need to certify that these standards are correct and present on any application for activity submitted before the CRMC.

e. A CRMC maintenance assent is required for all persons proposing to repair structures which have been destroyed less than 50 percent by storms, waves, or natural processes.

f. Washover sand, where feasible, should be left on non-paved roads, driveways, and parking lots, in order to allow the natural barrier rollover to continue and to maintain the higher elevation. Loose gravel may be placed over this sediment. When highway resurfacing or maintenance is to be done by RI Department of Transportation, elevations shall be upgraded to new appropriate heights for the region as determined by CRMC, and proper drainage shall accompany these elevation changes where appropriate. This avoids the re-establishment of low roadways within overwash areas that perpetuate flooding and flood damage.

g. The Council encourages post-storm reconstruction applicants to increase setbacks further from the coastal feature than the previous development without expanding the footprint.

2. Restoration of Storm-Surge Channels and Temporary Inlets

a. New inlet channels breached to Potter Pond through East Matunuck Beach may be filled in with sand or gravel only after an evaluation of the impacts of a direct connection between Potter Pond and the ocean has been made.

b. New inlet channels cut across the beach to Quonochontaug, Winnapaug or Maschaug Ponds may be immediately filled in with sand or gravel by the local municipality.

c. Dredging of washover sand shall be permitted for navigation in the Green Hill Pond Inlet, the Bluff Hill Cove Inlet and in the main breachway channels. Any dredging of overwashed sand elsewhere within the ponds shall be limited to habitat restoration and enhancement. All dredged sand shall be placed on the adjoining ocean beach.

d. Sand transported on to paved roads leading to the beaches shall be plowed back onto the beaches and not into adjacent wetlands. Sand shall be placed on the beaches in the manner described in Figure 6 in § 3.4.7 of this Part.

3. Beach replenishment should be considered the method of choice for shore protection. Sources of sand for nourishment should come from inlet and

harbor dredging when feasible, and from potential offshore sources where deemed appropriate by CRMC or its technical experts.

B. Prohibitions

1. Filling, removing or grading is prohibited on beaches, dunes, undeveloped barrier beaches, coastal wetlands, cliffs and banks, and rocky shores adjacent to Type 1 and Type 2 waters, and in the Salt Pond Region unless the primary purpose of the alteration is to preserve or enhance the area as a natural habitat for native plants and wildlife or as part of a beach nourishment/ replenishment project. In no case shall structural shoreline protection facilities be utilized in this manner. Limited filling, removing, or grading may be permissible in the port area of Point Judith Pond to maintain its existing use.

2. Post-storm reconstruction of structures greater than 50 percent destroyed is prohibited from occurring within setback zones.

C. Standards

1. Construction Standards in Flood Zones [High Hazard Areas]

a. A significant amount of construction within Rhode Island's coastal zone has the potential to fall within a Federal Emergency Management Agency (FEMA) designated flood zone. The approximate limits of the flood zones and the associated base flood elevations are shown on FEMA's Flood Insurance Rate Maps, which are commonly available at municipal building official's offices. It is extremely important (and required) to know if your project falls within a flood zone and the associated building standards that must be adhered to for that zone to minimize the inevitable damage that occurs when building in a flood hazard area. The CRMC requires all applicants proposing construction within flood hazard zones to demonstrate that applicable portions of the Rhode Island State Building Code, which contains specific requirements for flood zone construction. Municipal building officials can provide information on the requirements and restrictions that apply to a specific building site. A letter from the building official conferring that all the necessary building requirements for a flood zone must accompany any application for construction work within the RICRMP management area, and this SAMP.

3.4.10 Historical and Cultural Resources

A. Introduction

1. The historical and cultural resources of the Salt Pond Region are a valuable asset to the communities in Westerly, Charlestown, South Kingstown and Narragansett. CRMC considers preservation of these resources as a high priority for the SAMP and utilizes the CRMC application process to ensure that the Rhode Island Historical Preservation and Heritage Commission (RIHPHC) has the opportunity to research various locations in the Salt Pond Region.

B. Policies

1. Applications for major activities within the salt ponds watershed shall be forwarded to RIHPC for review and comment as part of the standard CRMC regulatory process.

2. Areas that are likely archeological sites due to prior knowledge, or conducive environmental factors including, but not limited to, proximity to salt and freshwater, small south-facing slopes, and well drained soils, are identified by RIHPHC. Though other areas may exist and RIHPHC reserves the right to require additional information and potential digs, these areas are identified to give applicants a sound idea of areas of concern. Applicants for activities proposed within these areas will likely be required by RIHPHC to perform a phase I archeological investigation.

3. The CRMC will await the response of RIHPHC prior to completion of its own staff review and subsequent Council decision. Unless a special exception occurs, the Council will incorporate the RIHPC guidance into its regulatory decision-making and permit stipulations. If a proposed project is located in a demarcated RIHPHC area of interest, it may be helpful to contact RIHPHC prior to filing an application with CRMC, in order to be aware of their potential concerns.

4. Where possible, those sites identified by RIHPHC as having potential historical or archeological significance will be incorporated into the buffer zone by extending the boundary of the buffer where appropriate.

3.4.11 Cumulative Impacts

A. Introduction

1. Managing for cumulative impacts is becoming one of the major issues for CRMC as nitrogen loading to the salt ponds increases and more and more people move to the salt pond watersheds. CRMC will be focusing on the cumulative impacts of OWTS, impervious areas, stormwater runoff, vegetation removal and soil erosion, dredging the stabilized breachways and tidal deltas, barrier beach and flood zone development, residential

activities, marinas, docks, and recreational boating, public water and sewer facilities, wetland alteration and noise and lighting impacts on habitat. All of these activities have the potential to cause effects in the ecosystem which increase the probability of shellfish closures, fish habitat degradation and loss, eutrophication, sedimentation of shellfish beds and much more.

B. Policies

1. It is the Council's policy to minimize cumulative impacts by anticipating and appropriately siting land and water uses and development activities to avoid cumulative effects to the salt ponds.

2. It is the Council's policy to consider the cumulative impacts of OWTS, impervious areas, stormwater runoff, vegetation removal and soil erosion, dredging the stabilized breachways and tidal deltas, barrier beach and flood zone development, residential activities, marinas, docks, and recreational boating, public water and sewer facilities, wetland alteration and noise and lighting impacts on habitat. These cumulative impacts are explained in Chapter 8, Findings of Fact of this SAMP.

3. The Council recognizes that an increase in the amount and strength of pollutants entering the salt pond watersheds may result from cumulative impacts. Therefore, the Council will consider the cumulative effects of these actions with particular consideration to nutrients, pathogen indicators, hydrocarbons and heavy metals, road salts, fragmented habitats, and loss of aquatic habitats.

4. It is the Council's policy to minimize nitrate loading to groundwater from each individual lot in Lands Developed Beyond Carrying Capacity, residential and commercial substandard lots which are designated as Self-Sustaining Lands or Lands of Critical Concern, and all lands abutting the salt ponds.

C. Standards

1. In those areas which are designated as Lands Developed Beyond Carrying Capacity, alternative technologies that reduce nitrogen loading to groundwater and directly to the salt ponds in overland runoff are required for new development. This includes, according to the type of development: nitrogen reducing technologies; narrower road widths; clustering of development to reduce road lengths with remaining open space maintained adjacent to surface waters; restrictions on layouts of subdivision cul-de-sacs and roadways to reduce impervious surface and

encourage infiltration of stormwater; use of pervious materials for driveways; restrictions on the number of parking spaces per square foot of commercial development to match average daily use - not potential maximum, and requirements that all overflow parking be constructed using pervious materials; and more accessible alternative transportation such as pedestrian, bicycle and mass transit.

2. In those areas which are designated as Self-Sustaining Lands or Lands of Critical Concern, residential and commercial development on substandard lots, and on all lots abutting the salt ponds alternative technologies that reduce nitrogen loading to groundwater and directly to the salt ponds in overland runoff are required. This will include according to the type of development: nitrogen reducing technologies; narrower road widths; clustering of development to reduce road lengths with remaining open space maintained adjacent to surface waters; restrictions on layouts of subdivision cul-de-sacs and roadways to reduce impervious surface and encourage infiltration of stormwater; use of pervious materials for driveways; restrictions on the number of parking spaces per square foot of commercial development to match average daily use - not potential maximum and requirements that all overflow parking be constructed using pervious materials; and more accessible alternative transportation such as pedestrian, bicycle and mass transit.

3.4.12 Experimental Coastal Erosion Control

A. Policies

1. Unless extended by the Council, these Experimental Coastal Erosion Control rules shall expire on October 7, 2024.

2. The Council considers experimental coastal erosion methods as temporary, short-term solutions while longer-term solutions are considered for these shorelines. Longer-term solutions may require a landward retreat of residential and commercial structures, including public infrastructure, as sea level rise and coastal storm surge impacts continue into the future.

3. It is the Council’s policy to carefully control and monitor the use of experimental coastal erosion techniques for use only in the Misquamicut and Matunuck Headland areas described below. Further, it is the Council’s policy to assess the effectiveness of experimental coastal erosion techniques before authorizing their continued use in these two headland areas. Therefore, since some experimental techniques could have detrimental and undesirable environmental and economic impacts on the

coastal environment, it is the Council's policy to evaluate such techniques over a multi-year period before approving their continued use.

4. It is the Council's policy to require that any Assent issued under the provisions herein shall terminate at the end of three (3) years. If an experimental method proves successful during the initial permit period, then the applicant may apply for renewal of the Assent.

5. Because barriers are dynamic coastal features and are constantly shifting due to wave and wind forces, the Council will not authorize the use of experimental erosion control techniques on any parcels located on CRMC-designated barriers.

6. The Council may permit experimental coastal erosion control techniques along Atlantic Avenue between and inclusive of parcels 165-282 to 165-286 and 175-1A to 175-16 and 176-17 to 176-31. These parcels comprise the shoreline of the Misquamicut Headland. See Figure 6 of § 3.4.12(E) of this Part.

7. The Council may permit experimental coastal erosion control techniques along Matunuck Beach Road between and inclusive of parcels 92-2:46 to 92-3:9. These parcels constitute a portion of the Matunuck Headland west of the cobble terrace. See Figure 7 of § 3.4.12(F) of this Part. At the request of the Town of South Kingstown, parcel 92-2:43 containing the Town Beach facility has been included as an eligible parcel for use of experimental coastal erosion control.

8. It is the Council's policy to require applicants or their agents to file a Preliminary Determination (PD) request with the CRMC. The CRMC shall not accept a formal application for an Assent until the Preliminary Determination has been completed and issued by the CRMC. There is no filing fee for the PD request. The PD process is an opportunity for a pre-application consultation and for CRMC staff, in consultation with the technical Review Panel, to provide an opinion as to whether the proposed experimental coastal erosion method is appropriate and whether a performance bond or escrow account will be required of the applicant. Pending violations shall also be reviewed and discussed during the PD meeting and a resolution of the violation(s) shall be formulated.

9. The Council's policy is that any experimental coastal erosion control technique approved for use by the Council may be subject to immediate suspension and/or termination in the event that the Council determines that the experimental technique is having a significant environmental or

economic impact or a significant impact to public shoreline usage or accelerating erosion on the site or adjacent areas.

10. The Council's policy is that revetments, bulkheads, seawalls, groins, breakwaters or jetties are not authorized coastal erosion control methods for purposes of this section.

11. It is the Council's policy that unauthorized structures or unauthorized work must be removed or a valid CRMC Assent must be obtained for the unauthorized structure or work. Such unauthorized structures or work may be removed concurrently with the construction of experimental coastal erosion control techniques approved by the CRMC.

12. Erosion and the effects of an experimental coastal erosion control system are not restricted by property boundaries. Thus, it is the Council's policy to encourage joint applications amongst abutting property owners that seek to address erosion based on the natural physical environment rather than on a lot-by-lot basis. Individual applications, especially by owners of properties with limited coastal exposure will be closely scrutinized to prevent detrimental or undesirable impacts to surrounding properties and public infrastructure. The State holds the area below the Mean High Water (MHW) line in public trust.

B. Other State or Federal Permits

1. Applicants for experimental erosion control structures that are to be located in tidal waters or the intertidal zone, seaward of the mean high water (MHW) line, are required to obtain a federal Army Corps of Engineers permit. Applicants are advised to apply for the federal permit concurrently with the CRMC permit. In addition, such applications may also require a DEM Water Quality Certification, and accordingly, applicants are advised to apply directly to DEM concurrently with the CRMC application process.

C. Prohibitions

1. The installation or use of experimental erosion control systems is prohibited unless located within the CRMC-designated areas of Misquamicut and Matunuck described herein and permitted by the CRMC.

2. The installation of new revetments, bulkheads, seawalls, groins, breakwaters or jetties is prohibited, as specified in § 1.3.1(G)(3)(a) of this Subchapter.

D. Standards

1. The Council may only permit experimental coastal erosion control systems on the Misquamicut Headland along Atlantic Avenue between and inclusive of parcels 165-282 to 165-286 and 175-1A to 175-16 and 176-17 to 176-31, and on the Matunuck Headland along Matunuck Beach Road between and inclusive of parcels 92-2:46 to 92-3:9, including parcel 92-2:43, only after review by the CRMC and after the applicant demonstrates the following conditions are met:

    a. it is feasible on an engineering and ecological basis that the proposed experimental erosion control technique will minimize coastal erosion;

    b. the proposed experimental coastal erosion control technique will not result in any long-term increased erosion on adjacent or downdrift properties; and

    c. the proposed coastal erosion control technique will not detrimentally impact coastal habitat or public access.

2. A Technical Review Panel (TRP) consisting of, but not limited to the following: the CRMC Executive Director; the CRMC Coastal Geologist; a CRMC Engineer, a CRMC Environmental Scientist; the DEM Director or designee, a URI Ocean Engineering professor, a University Coastal Geologist, and a municipal official appointed by their respective Town Councils of South Kingstown and Westerly. Additionally, a town resident from South Kingstown and Westerly appointed by their respective Town Councils may be included on the TRP as an ex-officio, non-voting member The TRP will evaluate each experimental coastal erosion control method or technique as part of the CRMC Preliminary Determination review process and make recommendations as to whether such systems should be considered for use and permitted by the CRMC. The TRP may also make recommendations as to technology-specific permit conditions where warranted.

3. Applicants shall submit a Preliminary Determination (PD) request (no filing fee) to the CRMC detailing the proposed experimental erosion control project. Applicants or their agents shall participate in a PD meeting with CRMC staff. The CRMC shall not accept a formal application until the Preliminary Determination has been processed and issued. The CRMC staff in consultation with the Technical Review Panel will provide an opinion within the PD as to whether the experimental coastal erosion method is appropriate as proposed and whether a performance bond or escrow account will be required of the applicant. Performance bond/escrow account requirements will be determined on a case-by-case

basis depending on the scope and complexity of the proposed project. In addition, a resolution to any pending violation(s) shall be formulated as part of the PD meeting.

4. Applicants seeking CRMC approval for experimental erosion control techniques in the designated areas must submit the following documentation along with their applications:

    a. Proof of ownership in the form of a current certified copy of the deed of the subject property or a letter from the local tax assessor certifying ownership;

    b. A current list of the abutting property owners including names and current mailing addresses sufficient for public notice purposes;

    c. A description of the experimental erosion control technique including materials (sand, cobble, gravel, etc.) to be used as fill and the source of those materials, and the method of installation and project site access for construction equipment and vehicles;

    d. An impact avoidance and minimization statement – essentially detailing what installation methods will be used and their timing to avoid and minimize impacts to the beach and public access along the beach.

    e. For experimental erosion control installation landward of mean high water (MHW) line a site plan prepared by a Rhode Island-licensed land surveyor or professional engineer shall be submitted showing beach profile locations that are perpendicular to the shoreline and located along the property boundaries and every twenty-five feet within the property bounds. Beach profiles shall be marked with a physical datum point on the landward end of each profile. The top of each datum shall be surveyed and referenced to NAVD88. Profiles should extend seaward to MLLW, where possible. Datum should be placed deep enough so as to not erode and high enough so as not to be buried by storm overwash.

    f. For experimental erosion control installation on public lands seaward of mean high water (MHW) line a site plan prepared by a Rhode Island-licensed land surveyor or professional engineer shall be submitted showing beach profile locations that are perpendicular to the shoreline and located along the property boundaries and every twenty-five feet within the property bounds. Beach profiles shall be marked with a physical datum point on the landward end of

each profile. The top of each datum shall be surveyed and referenced to NAVD88. Profiles should extend seaward to MLLW, where possible. Datum should be placed deep enough so as to not erode and high enough so as not to be buried by storm overwash.

5. The Council shall require the applicant to submit a detailed survey of current site conditions in the area subject to impact by the experimental erosion control system to serve as a baseline against which to measure the effectiveness of the system. Applicants shall use the Modified Emery Method to develop a beach profile that shows current beach face elevations. A fixed control point shall be established based on a benchmark referenced to NAVD88 so that profiles can be compared to profiles in adjacent areas.

6. Unauthorized structures or unauthorized work shall be removed or a valid CRMC Assent must be obtained for the unauthorized structure or work. Such unauthorized structures or work may be removed concurrently with the construction of experimental coastal erosion control techniques approved by the CRMC. The applicant shall schedule a site visit with CRMC permit staff to ensure that the unauthorized structure was removed before or during installation of the CRMC-approved experimental coastal erosion method.

7. As determined through the Preliminary Determination process the CRMC may require the applicant to post a performance bond or provide an escrow account to ensure that failed erosion control systems are properly removed in the event of failure. The Council may require the applicant to restore the beach to pre-system installation conditions. Performance bonds or escrow accounts, when required, shall cover 100 percent of expected removal and restoration costs. The term of the performance bond or escrow account must be for the entire life of the project.

8. All experimental coastal erosion control proposals shall be processed as a Category B application requiring public notice.

9. Monitoring requirements. The applicant must submit with their application a monitoring plan with protocols developed by a coastal engineer or coastal geologist or other qualified expert that provides for a minimum three (3) years of monitoring data that includes quarterly reports submitted to the CRMC. Permittees shall submit quarterly reports to the CRMC and include photographs and beach profiles with a fixed control point of reference. The CRMC will evaluate the plan and may require further monitoring conditions. A summary report shall be submitted to the CRMC within 30 days following the end of the 3-year period or when notified by

the CRMC that details whether the experimental coastal erosion control was a success or failure and the reasons behind such success or failure.

10. Assents for experimental coastal erosion control shall only be valid for a three (3) year period, but may be renewable upon application. A Permittee must submit an application for renewal within sixty (60) days prior to the expiration of the Assent. Otherwise, the experimental coastal erosion control must be removed at the termination of the Assent and the site restored to pre-project conditions. Assents for experimental coastal erosion control are not subject to tolling as provided in R.I. Gen. Laws § 46-23-6.3.

11. Failure of experimental erosion control system shall be determined by the CRMC and may include, but not be limited to, any or all of the following:

    a. poor performance that is below the projected claims of the experimental system manufacturer or applicant;

    b. abnormal damage to properties or public infrastructure;

    c. significant environmental damage (either cumulative or site specific);

    d. presents a hazard to life or property;

    e. significant detrimental impacts to public access; and

    f. potential to become a significant hazard to public safety during a storm.

12. The fact that an experimental erosion control system has not been evaluated for the full monitoring period specified herein, shall not preclude a determination by the CRMC that the system has failed.

13. Upon determining that an experimental coastal erosion control system has failed, the CRMC will issue an Assent revocation notice to the Permittee and the Council will hold a public hearing on the matter and provide the Permittee and other parties an opportunity to present evidence. The CRMC will order the Permittee to remove, and in some cases immediately remove depending on severity of impact, of any failed experimental erosion control system as defined above, based upon the testimony and evidence presented at the public hearing. The CRMC may utilize the Performance Bond or Escrow account to pay for the removal of structures and restoration of the beach in the event that the Permittee fails to do so as ordered by the Council.

14. The CRMC shall retain jurisdiction over any Assents issued prior to the enactment of these regulations that are the subject of an outstanding compliance order or other formal administrative, civil or criminal legal action initiated by the CRMC for the purpose of litigating or settling that action.

15. The CRMC shall retain jurisdiction over any Assent application(s) acted upon by the CRMC prior to the enactment of these regulations to permit the CRMC to defend or settle any legal proceedings brought against it as a result of those actions.

16. Any compliance order issued or other civil or criminal enforcement action taken by the CRMC prior to the enactment of these regulations shall continue to be subject to the CRMC's authority and to be governed by the rules and regulations in effect at the time the order was issued or action taken.

E. Figure 6: Misquamicut headland area depicting shoreline parcels eligible for experimental coastal erosion control

F. Figure 7: Matunuck headland area depicting shoreline parcels eligible for experimental coastal erosion control

G. Table 2: Eligible Parcels

Experimental Coastal Erosion Control – Eligible Parcels			
Westerly - Misquamicut		South Kingstown – Matunuck	
Parcel ID	Address	Parcel ID	Address
165-282	149 Atlantic Avenue	92-2:46	811 Mutunuck Beach Road
165-283	145 Atlantic Avenue	92-2:47	855 Matunuck Beach Road
165-285	141 Atlantic Avenue	92-3:1	883 Matunuck Beach Road
165-286	139 Atlantic Avenue	92-3:2	895A & B Matunuck Beach Road
176-17	137 Atlantic Avenue	92-3:3	907A & B Matunuck Beach Road
176-18	133 Atlantic Avenue	92-3:4	911A & B Matunuck Beach Road
176-19	129 Atlantic Avenue	92-3:5	915 Matunuck Beach Road
176-20	127 Atlantic Avenue	92-3:6	919 Matunuck Beach Road
176-21	121 Atlantic Avenue	92-3:7	921A & B Matunuck Beach Road
176-22	119 Atlantic Avenue	92-3:8	929 Matunuck Beach

			Road
176-23	117 Atlantic Avenue	92-3:9	933 Matunuck Beach Road
176-24	115 Atlantic Avenue	92-2:43	719 Matunuck Beach Road
176-25	111 Atlantic Avenue		
176-26	111 Atlantic Avenue		
176-27	109 Atlantic Avenue		
176-28	103 Atlantic Avenue		
176-29	89 Atlantic Avenue		
176-30	85 Atlantic Avenue		
176-31	83 Atlantic Avenue		
175-1A	75 Atlantic Avenue		
175-1	69 Atlantic Avenue		
175-2	65 Atlantic Avenue		
175-2A	57 Atlantic Avenue		
175-4	55 Atlantic Avenue		
175-5	53 ½ Atlantic Avenue		
175-6	53 Atlantic Avenue		

175-7	51 Atlantic Avenue		
175-8	48 Atlantic Avenue		
175-9	49 Atlantic Avenue		
175-10	47 Atlantic Avenue		
175-11	45 Atlantic Avenue		
175-12B	45 Atlantic Avenue		
175-13	37 Atlantic Avenue		
175-14	35 Atlantic Avenue		
175-15	33 Atlantic Avenue		
175-16	31 Atlantic Avenue		

650-RICR-20-00-3

TITLE 650 - COASTAL RESOURCES MANAGEMENT COUNCIL

CHAPTER 20 - COASTAL MANAGEMENT PROGRAM

SUBCHAPTER 00 - N/A

PART 3 - SALT POND REGION SPECIAL AREA MANAGEMENT PLAN (650-RICR-20-00-3)

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