

**A Report on the Implementation of the**

# **Marine Resources Development Plan**

*January 2008*





***RIGL § 46-23-6(1)(A) Marine Resources Development Plan***

*The purpose of the marine resources development plan shall be to  
provide an integrated strategy for:*

- (a) improving the health and functionality of Rhode Island's marine ecosystem;*
- (b) providing for appropriate marine-related economic development; and*
- (c) promoting the use and enjoyment of Rhode Island's marine resources  
by the people of the state.*

*The council shall administer its programs, regulations, and  
implementation activities in a manner consistent with the marine  
resources development plan.*

***Rhode Island Coastal Resources Management Council***

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**Grover J. Fugate, Executive Director**

Cover photograph - Abandoned Cabin Pettaquamscutt River John Chafee National Wildlife Refuge  
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# **A Report on The Implementation of The Marine Resources Management Plan**

**January 2008**

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### **Introduction**

In the spirit of continually striving to have one of the best coastal zone management programs in the nation, the Rhode Island General Assembly adopted a law in 2004 that required the CRMC to prepare a Marine Resources Development Plan (MRDP). This plan is aimed at improving the health and functionality of Rhode Island's marine ecosystem, providing for appropriate marine-related economic development; and promoting the use and enjoyment of Rhode Island's marine resources. The law states that, *"The Council shall administer its programs, regulations, and implementation activities in a manner consistent with the Marine Resources Development Plan"*.

While the CRMC is probably best known as a regulatory agency, it plays a much broader role. For example, the CRMC has developed comprehensive Special Area Management Plans (SAMPs), and the Coastal Buffer Program, both of which are used as models at the national and international level. Working with its federal partner, NOAA, CRMC prides itself on striking a balance between environmental stewardship and management and smart economic development.

Since the CRMC was established more than 35 years ago, it has played a major role in creating landmark policies, regulations and activities to enhance the high quality of life we enjoy when coastal ecosystems are intact, healthy and productive. The CRMC has come to be recognized as a national leader in coastal resources management. This reputation has been earned through a commitment to preserving access to the shore, maintaining our waterways for both recreational and commercial uses, finding opportunities for economic growth such as aquaculture, and developing programs that protect and manage ecosystem values. We look forward to maintaining the high expectations that you as citizens demand.

The Marine Resources Development Plan helps the CRMC realize new achievements and accomplishments in coastal zone management. The projects and other initiatives called for in the MRDP will help insure that the next 35 years promise to be even more exciting than the first, as the Council continues on its primary mission of preserving, protecting, developing, and restoring the state's coastal resources.

A handwritten signature in black ink, reading "Michael M. Tikoian".

**Michael M. Tikoian**  
**Chairman**

A handwritten signature in black ink, reading "Grover J. Fugate".

**Grover J. Fugate**  
**Executive Director**



**India Point Park**

Photograph by Jodie Goodnough. Used by permission from [www.ri.gov](http://www.ri.gov).



## *The Marine Resources Development Plan...*

### **Changing Dynamics, New Responsibilities**

The dynamics that gave rise to the establishment of the Coastal Resources Management Council (CRMC) in 1971 have changed. The pressures on the CRMC as an institution comprising the Council, staff, consultants, and partners, are different than they were even as recently as a half decade ago. Public expectations and opportunities for a vibrant coastal state and the leadership to make it happen are greater than ever. The Marine Resources Development Plan (MRDP) is constructively responsive to those expectations and opportunities.

The CRMC finds that uses of marine resources in Rhode Island are intensifying; that optimizing the potential of this intensification will require intentional action—i.e. it will happen by design, not by accident; and that needed intentional actions are collaborative in nature. The themes of intensification, design, and collaboration run throughout the MRDP. It sets forth what needs to be done and how to do it. Action and operations are distinct concepts, which are more powerful when they are complementary. The MRDP as a guide to both is intended to provide a basis for that complementarity.

The effective, constructive response to changing dynamics presented in the MRDP constitutes an evolution of the CRMC and challenges to the organization as it moves forward. It presents new roles to be played by the CRMC in policy adoption and planning; by staff in support of the Council and in program administration; by consultants, researchers, and key partners, including other state agencies, cities and towns.

The basic premise of the MRDP is that better results are achieved when expectations are clear and when parties work together. From its inception, the CRMC has had planning and coordination among its powers and duties. The MRDP is structured around these authorities and builds on the CRMC's leadership in water-use zoning and special area management planning.

At the time of the preparation of the MRDP, coastal land values in Rhode Island have never been higher. At the same time, the risks of inappropriate coastal development have been made vivid by the devastation wrought by hurricane Katrina in Louisiana and Mississippi. Tragedies of this kind are a part of Rhode Island's history and have taught us that coastal activity must be guided by best practices.

### ***The Marine Resources Development Plan***

*is a formally adopted CRMC policy statement intended to serve as a guide to action and to practice.*

*The CRMC has always viewed itself as connected to the larger community rather than as a stand-alone administrative agency.*

*This viewpoint informs the MRDP.*

## **The MRDP as a Strategy to Guide to Action and Practice**

Rhode Island is in a critical period in its relationship between its people and its coastal resources. A century and a half ago, Rhode Island possessed sweeping open stretches of untouched shoreline, productive coastal farmlands, and what appeared to be an unending bounty of fish and shellfish. The Bay seemed capable of absorbing an ever-increasing volume of sewage and industrial waste.

At the beginning of the twentieth century, Rhode Island's shore and waters were a playground for all strata of society. Gradually, the shore was developed with homes, businesses and infrastructure, and the old recreational facilities of the urban areas disappeared. By the late 1960s lagoons, estuaries, beaches and ocean resources were being threatened by water pollution, rapid land development, building practices that damaged wetlands and habitat, proposals to build nuclear power plants and oil refineries. The working waterfronts of Newport and Providence were in a shambles. And although it was not recognized at the time, many of the coastal fisheries were at their peak. Today, Rhode Island can celebrate major accomplishments in restoring water quality, protecting fragile coastal features, reaching agreement on how shore areas and harbors should be used, and expanding public access. Public support, citizen organization, better laws and new government agencies have converged to set and carry out a restoration and protection agenda. This is largely the result of actions taken in the 1970s and 1980s, through which Rhode Island adopted pioneering coastal, marine and land management laws. Coastal cities and towns devoted time and effort to plan for the use of their shorefront lands. In addition, the state and at least eleven coastal communities have worked together to create special area management plans to collaboratively manage critical coastal ecosystems and areas along with a wide range of investments and conservation measures. This progress, significant as it is, needs to be continued.

The MRDP, a commitment by the CRMC to remain a national leader in coastal zone management, is one way to do this.

## **It's Implementation**

The concept of the MRDP emerged from a series of meetings and task force reports to the General Assembly and the Governor's urging that Rhode Island as a whole needed to do a better job in marine and coastal resources management. In 2004, the Rhode Island General Assembly found that state agency collaboration was not at the level required to meet the challenges and take full advantage of the opportunities offered to the state as it looked to the future. As a result, a suite of legislation was passed in 2004. One of these statutes called for CRMC to formulate and adopt a marine resources development plan.

The MRDP was developed to intentionally design our coastal and marine economies through holistic approaches of coastal zone management. This strategy is essential for Rhode Island to be competitive as a vibrant economy and to provide a quality environment for its growing population. Since the 1970s, the

state has had a robust regulatory framework in place that supports such intentional design, however greater benefits could accrue from enhanced integration and coordination through proactive planning; hence the MRDP.

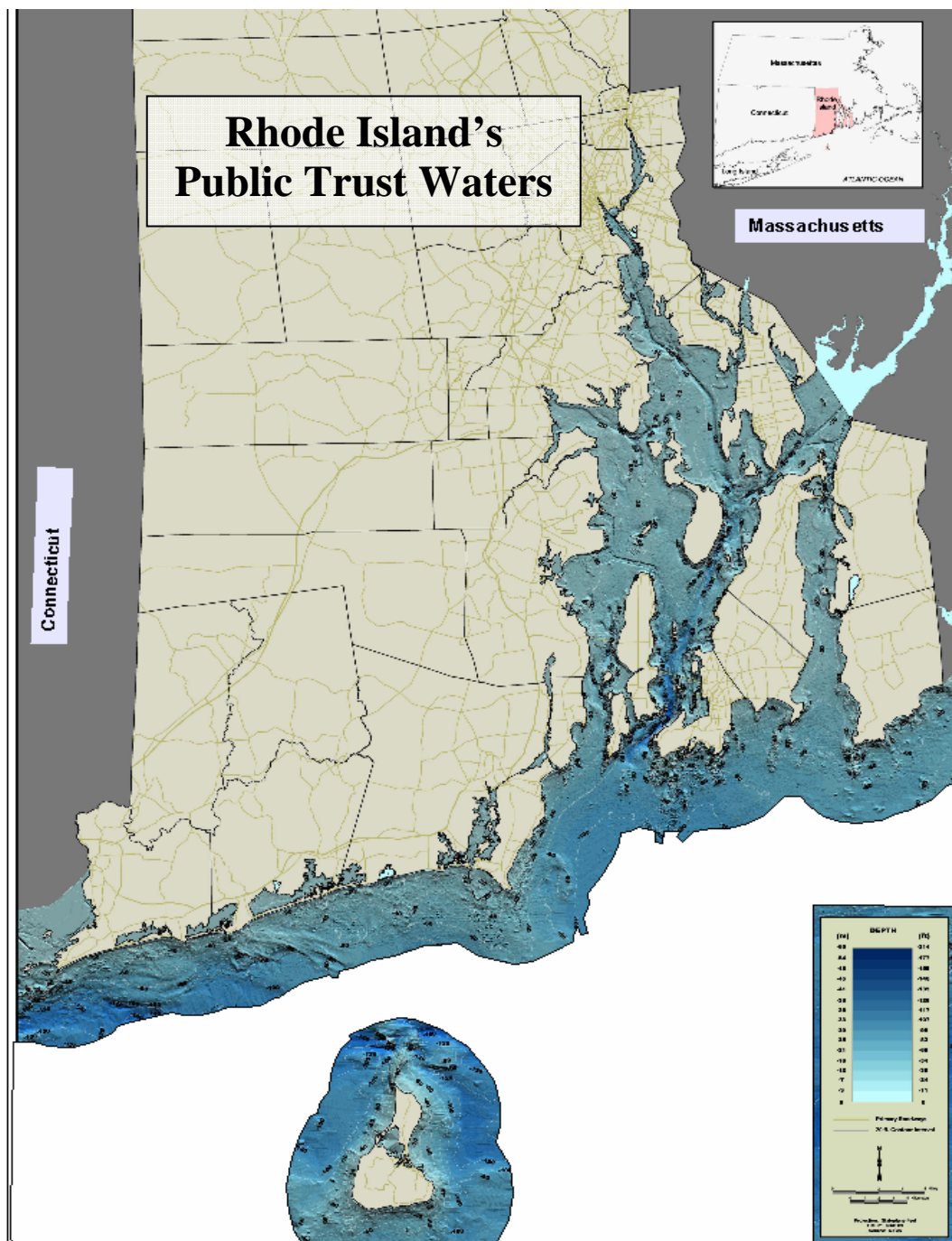
## **Goals for the Marine Resources Development Plan**

As outlined above, this vision for coastal and marine resources requires the wholehearted pursuit of the following goals:

- Properly functioning bay and lagoon ecosystems, including coastal buffers, wetlands, salt marshes and sea grass beds that can be both ecologically effective and economically beneficial.
- Abundant and sustained fishing and fisheries resources – recognizing the need for diversified and healthy habitats for fish and shellfish in our Bay, rivers and lagoons in order to reach this goal.
- Successful coastal places, pleasant neighborhoods, and access to improved coastal parks, greenways and a variety of options for accessing the shore and its tributary rivers from land and sea.
- Marine-based economic development that meets the aspirations of local communities and is consistent and complementary to the state's overall economic development needs and goals. This development draws upon and is inspired by the beauty and quality of the environs, including the protection and enhancement of maritime activities, marine culture and a sense of place.

Four key, inter-related issues must be addressed in the MRDP's integrated strategy for future marine resources development:

- a) Coastal sites for new recreation, conservation or economic development are becoming scarce, with the specter that private owners will be the primary beneficiaries of coastal resources that should be accessible to all, in accordance with Rhode Island's Constitution. Existing shorefront homes and businesses are being expanded and obsolete residential and commercial properties along the coast are being redeveloped.
- b) Water quality has improved a great deal but there must be the will to finish the job and to maintain gains over the long term.
- c) Many fisheries stocks are below their sustainable yield potential.
- d) Rhode Island has a mixed record when it comes to bringing diverse views, voices and authorities together to make decisions that move us confidently forward.



## Public Trust Coastal Waters

### The Rhode Island Constitution

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

### Rhode Island Legislative Findings on the Public Trust

**§ 46-23-1 Legislative findings.** – (a)(1) Under article 1, § 17 of the ... Constitution, the people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the charter and usages of this state, including but not limited to fishing from the shore, the gathering of seaweed, leaving the shore to swim in the sea and passage along the shore; and they shall be secure in their rights to use and enjoyment of the natural resources of the state with due regard for the preservation of their values;

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

#### **Public trust waters are defined by common law:**

*“...provides that public trust lands waters and living resources in a state are held by the state in trust for the benefit of all the people...It applies whether the trust lands are privately or publicly owned. The clear purpose is to preserve and continuously assure the public’s ability to fully use and enjoy public trust land, waters, and resources for certain public uses.”*

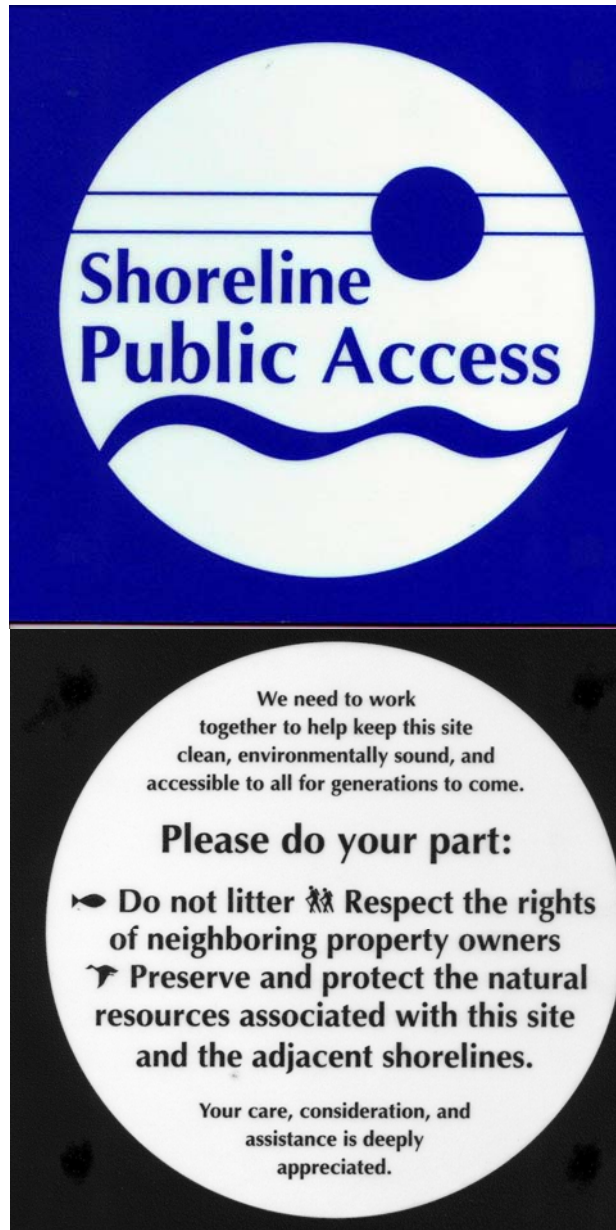
Each state has a different interpretation of what activities the public has a right to pursue in these areas.

In Rhode Island, state waters of public domain extend from mean high water three miles out to sea. Above mean high water, land and resources can be, and often are, privately owned.

In accordance with state and federal statute, projects involving the alteration of coastal areas require permits from CRMC.

*- Slade, D. 1997. Putting the Public Trust Doctrine to Work. Coastal States Organization. Washington, D.C.*





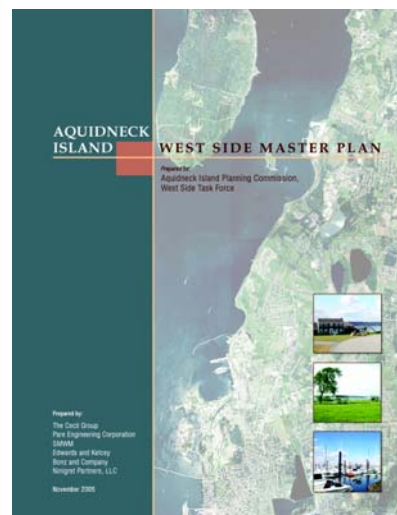
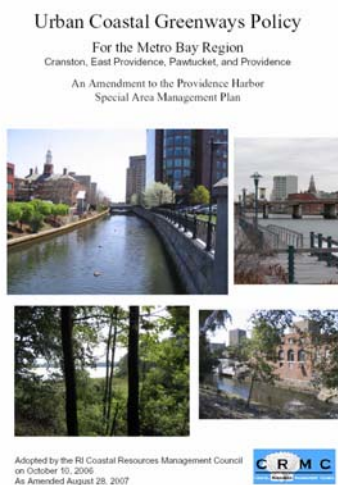
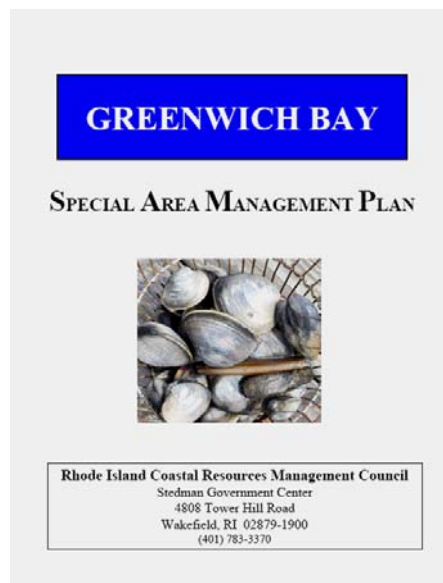
## Accomplishments

The following section contains the Marine Resources Development Plan **VISION STATEMENTS** which are accompanied by their *abbreviated* STRATEGIES.

Activities accomplished by the CRMC follow each and are either completed and/or underway since the MRDP was adopted in January 2006.

Please note that the accomplishments listed are highlights of those actually associated with a VISION.

Please see the Appendices to see a more detailed list of accomplishments for each VISION.



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## Strategies for Marine Ecosystem Health

*The CRMC will use special area management plans, among other means, to foster the collaborative management of sub-regions of the coast and watersheds to advance ecological stewardship and environmental productivity.*

### ***Vision: Marine Ecosystem Health***

*Rhode Island coastal waters are functioning bay, lagoon and offshore marine ecosystems include coastal buffers, wetlands, salt marshes and underwater grass beds. Abundant and sustained fishing and fisheries resources include diversified and healthy populations of fish and shellfish in bays, rivers and lagoons*

1. The CRMC will continue to be an active partner in habitat restoration projects.
2. The CRMC will support Rhode Island's no-net-loss wetlands policy.
3. The CRMC will recognize the ecological costs and benefits of manmade habitats created by in-water structures, such as artificial reefs, including those created by marinas, docks, or breakwaters.
4. The CRMC will cooperate and contribute to efforts to build an enhanced ecosystem monitoring and assessment program, where collaboration among agencies and organizations is essential for capitalizing on existing efforts and prioritizing future monitoring.
5. Partnerships between research institutions and the public and private sectors shall be promoted to advance technological and environmental infrastructure that can be used to enhance coastal and marine habitats.



## **Actions and Accomplishments for Marine Ecosystem Health**

- *Special Area Management Plans: CRMC completed and adopted the Greenwich Bay SAMP and initiated the Metro Bay SAMP. The Greenwich Bay SAMP was developed in part in response to the increase in marina and boating activity and recreational use of the Bay and watersheds. The Metro Bay SAMP aims to provide an environmentally responsible vehicle for redevelopment of the Cranston, Pawtucket, East Providence and Providence waterfronts, through its designated Areas of Particular Concern. The CRMC also recently began work on an Aquidneck Island SAMP.*
  - *As part of the Greenwich Bay SAMP, the council worked closely with many partners; significant among them was the Department of Environmental Management. In so doing, the SAMP was successful in the coordination of the issue of water quality management for the watershed, as it incorporated and is the implementation of the Department's TMDL for Greenwich Bay. Total Maximum Daily Limits are water quality restoration plans that are in essence a prescription for the waterbody's return to a safe and healthy aquatic ecosystem.*
  - *Through its Urban Coastal Greenways (UCG) regulations, an integral part of the revisions to the Providence Harbor (now Metro Bay) Special Area Management Plan (SAMP), now requires LID techniques for redevelopment and development projects in urban coastal areas. The UCG regulations require this type of activity on the urban waterfronts of the cities of Cranston, Providence, East Providence and Pawtucket, valuable waterfront property aiding in these cities' urban revitalizations. The CRMC requires all applicants seeking permits to develop in the Metro Bay SAMP to demonstrate that their project design has been reviewed by someone with a Master Design Low Impact Development Certificate. The URI Coastal Resources Center has been offering certification classes for LID components and how to apply them to urban coastal settings.*
- *In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*
- *Since the General Assembly created the state Coastal and Estuarine Habitat Restoration Program and Trust Fund in 2003, and tasked the CRMC with creating the program and forming a Habitat Restoration Team to select projects for funding, the CRMC has approved 25 habitat restoration projects and additional research. It and its partners Save the Bay and RIDEM have provided \$750,000 in funds and has leveraged \$9 million in additional funding.*
- *Habitat Restoration: The CRMC continued to provide leadership for two ongoing federal restorations projects – the South Coast Habitat Restoration Project and the Allin's Cove Habitat Restoration Project. Upcoming projects include Narrow River and Brushneck Cove habitat restoration.*
- *Coastal Buffer Zone Program: The CRMC initiated a thorough review of its coastal buffer zone policy. The Council is developing a Greenwich Bay Suburban Buffer Zone Policy to address specific challenges that have been encountered during implementation of the Coastal Buffer Zone Program.*

### ***Vision: Marine Economic Development***

*The year is 2025 and it is clear that decisions made in the early 2000s were prudent—leaving options open for the future that are now reaping large financial rewards. These include the state’s decision to set aside key areas for coastal economic development, and to patiently cultivate the right kind of projects ...planners align their land and water allocation schemes to maintain an availability of commercial and industrial parcels for marine commerce ... development regulations at the local, state and federal levels function together ... Together, state and local officials can, in 2025, still offer developers the option of investing in a well thought-out mitigation bank program that restores habitat and extends the coastal greenway in exchange for selected variances that might be needed to redevelop a difficult site.*

### **Strategies for Marine Economic Development**

1. The CRMC will work with the EDC and the marine-related sectors to strive for clarity, agility, creativity and transparency in allocating coastal areas and setting priorities for their use.
2. The CRMC will build on and refine water use zoning, will provide leadership in harmonizing water use zoning with land use zoning, and will utilize the State Guide Plan process as a means to advance this effort.
3. The CRMC will encourage development proposals focused on growth centers that provide for mixed-uses that incorporate residential, commercial, employment, and recreational functions within a walkable area.
4. The CRMC will play an active role in areas such as habitat restoration and insuring federal consistency with state policies.
5. The CRMC will collaborate with local communities and the EDC to facilitate permitting and efficient decision making for major vacant or underutilized sites suitable for economic development.
6. The CRMC will use the SAMP as part of the overall public process aimed at developing revitalization plans for underused urbanized areas—with the goals of creating significant new employment opportunities, providing greater public access to the water, and protecting shoreline vistas.
7. The CRMC will promote the development of urban greenways as a means to implement buffer requirements to mitigate storm water impacts, protect habitat, and promote public access and to enhance interdependence of economic development and ecosystem goods and services at the coastal fringe.
8. The CRMC will collaborate with DEM and other agencies in efforts to restore fisheries for commercial and recreational purposes.

## **Actions And Accomplishments: Marine Economic Development**

- *In fall of 2006, the CRMC extensively revised its program Section 300.4 - Residential Boating Facilities. The comprehensive regulations call for more building and expansion standards, and encourage marina expansion outside of tidal waters using incentives. Marinas will also be directed, as a first order of business, to look within their existing perimeters to ensure they have the most efficient layouts before expanding further into tidal waters. In late 2004, CRMC Chairman Michael M. Tikoian in a letter to Executive Director Grover Fugate, asked the CRMC staff to begin developing new regulations with more detailed policies, standards and reviews.*
- *The CRMC, through its Urban Coastal Greenways (UCG) regulations, an integral part of the revisions to the Providence Harbor (now Metro Bay) Special Area Management Plan (SAMP), now requires LID techniques for redevelopment and development projects in urban coastal areas. The UCG regulations require this type of activity on the urban waterfronts of the cities of Cranston, Providence, East Providence and Pawtucket, valuable waterfront property aiding in these cities' urban revitalizations. The CRMC requires all applicants seeking permits to develop in the Metro Bay SAMP to demonstrate that their project design has been reviewed by someone with a Master Design Low Impact Development Certificate. The URI Coastal Resources Center has been offering certification classes for LID components and how to apply them to urban coastal settings.*
- *In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*
- *Marina Management: CRMC employed a variety of marine management measures to address increased recreational boating in Rhode Island. In order to balance the goals of providing access to recreation and protection of environmental and aesthetic resources, the Council "down-zoned" water types in certain embayments, rendering them ineligible for new marina construction or existing marina expansion. The Council began a comprehensive revision of its marina regulations to address controversial expansion issues. CRMC also incorporated effective BMPs into a formal operations and management plan for Rhode Island marinas.*
- *Aquaculture: CRMC continued its leadership with regard to the development and expansion of aquaculture in Rhode Island. The Council contributed its time and expertise to innovative projects that advanced the RIAI.*

***Vision: Marine  
Resources Use and  
Enjoyment***

*In 2025, Rhode Island offers a broad mix of recreational activities and opportunities meeting the needs of all groups, not just those of tourists and out-of-state second home and boat owners. These offerings appear as a diverse mosaic, which form an integral part of the daily life of every Rhode Islander ... levels of access to the coast have been increased significantly ... The Bay Islands join this flourishing network of large and small parks ... Recreational boating and marine transport ... has been harmonized to a degree not thought possible ... a much higher proportion of Rhode Islanders ... are accessing the water for the first time. These new-found levels of contact with the coast spawn new economic opportunities, such as ecologically oriented tourism that ranks in quality with more exotic and well-known international locations. Development intensifies in key coastal places, concentrating and reducing impacts elsewhere, and increasing economic viability of ecotourism and ecological recreation. Developers, the environmental community, and regulatory agencies work creatively and collaboratively to achieve new capabilities.*

**Strategies for Marine Resources Use and Enjoyment**

1. The CRMC, in collaboration with the Department of Environmental Management Division of Parks and Recreation and other agencies, will promote and facilitate a network of coastal parks and dedicated water trails, which provide amenities for a broad variety of marine-based recreational uses.
2. The CRMC will recognize extraordinary, high visual aesthetics, and promote the maintenance and enhancement of visual access from the water and from scenic overlooks, including highways along the shore.
3. The CRMC will maintain and expand public access and support a variety of recreational activities to and along the shore and within the Bay and coastal waters.
4. The CRMC, in collaboration with the Department of Environmental Management Division of Fish and Wildlife and other agencies, will partner with higher education institutions and the private sector to enhance and expand natural and manmade environmental infrastructure that supports marine fish and wildlife.
5. The CRMC will collaborate with DEM and other agencies in efforts to restore fisheries.
6. The CRMC will continue to provide technical expertise in cooperation with DEM and Department of Health (DOH) to monitor the health and functionality of the state's bathing beaches.
7. The CRMC will collaborate with EDC and other agencies to market the diversity of water sports in the Ocean State by focusing on the physical activities available and the quality-of-life these activities support.
8. The CRMC will take a leadership role in working with coastal communities to update their harbor management plans.

## **Actions And Accomplishments for Marine Resources Use and Enjoyment**

- *In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*
- *In June 2007 the CRMC adopted major revisions to Section 300.18 – Submerged Aquatic Vegetation, renaming it Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern. The revised regulations provide the Council with stronger grounds for denial of an application where impacts on SAV are substantial or cannot be avoided or minimized, or if the proposed activity is adjacent to or includes a restoration site and/or the site includes the sole sources of SAV habitat in that area. These regulations also address docks that might span SAV.*
- *Public Access: CRMC worked to promote and to improve public access in Rhode Island through the permitting process, the ROW Program and the harbor management planning process. The Council worked with its partners to develop a comprehensive public access plan for the Quonset Business Park. CRMC also updated its popular public access guide to Rhode Island's coastal waters.*
- *Land Acquisition: Working with its partners, the CRMC developed the Rhode Island CELCP Plan and submitted it to OCRM. The plan is a comprehensive and coordinated planning document that assesses Rhode Island's priority coastal and estuarine land conservation needs and provides clear guidance to applicants for nominating and selecting coastal and estuarine land conservation projects within Rhode Island.*



## Strategies for Leadership, Support and Coordination

### ***Vision: Leadership, Support & Coordination***

*Implementation of the MRDP hinges on the internal capabilities of CRMC to provide leadership, utilize design thinking and generate policy guidance for managing the marine resources of the state.*

*These new capabilities will enhance CRMC's effectiveness when working with other agencies as well as coastal communities and will build CRMC's reputation as a partner and ally in managing the state's marine environment.*

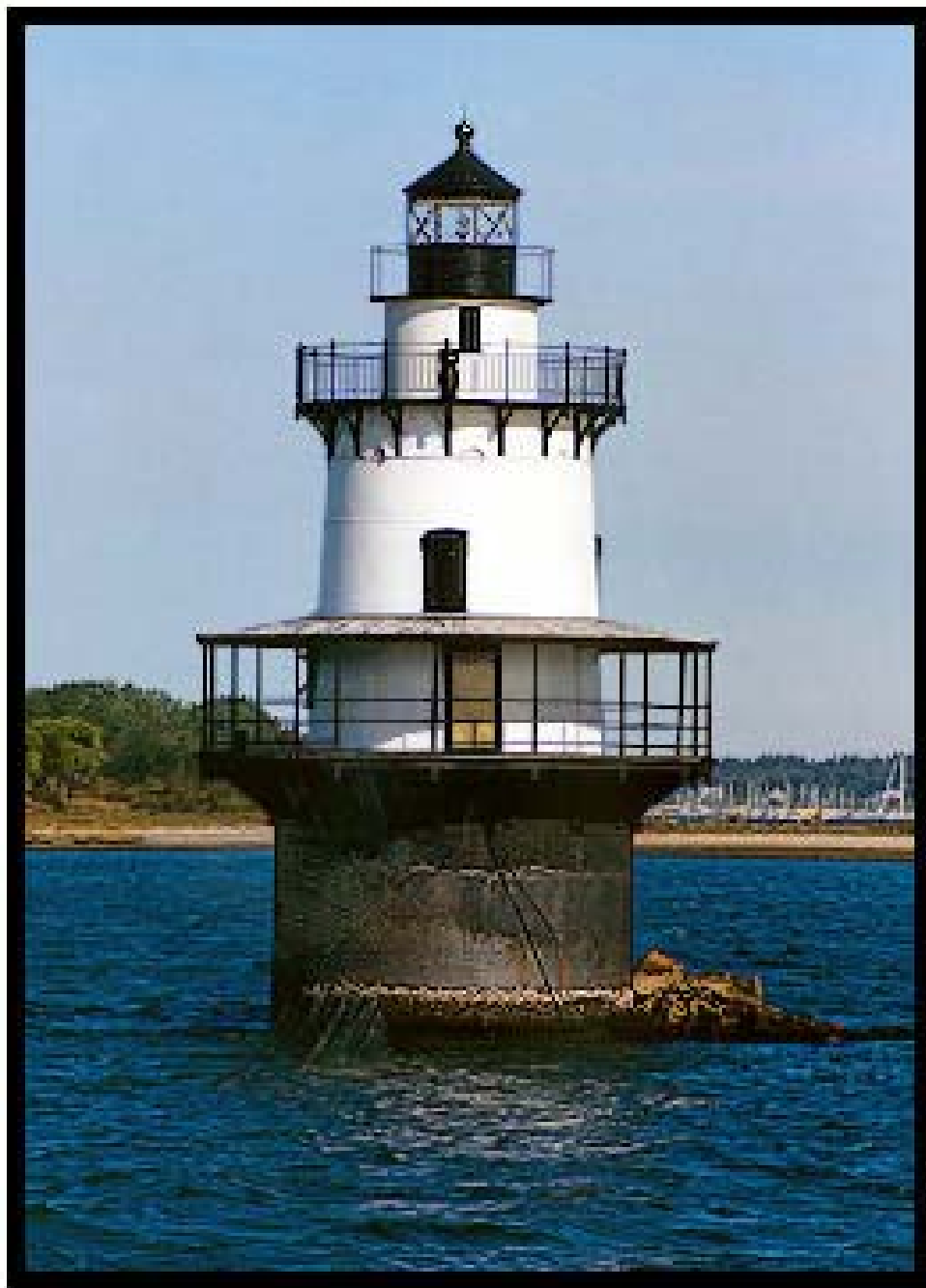
1. The CRMC will maintain and use the MRDP as a strategic guide to action and practice—one that is clear, flexible, kept up-to-date and subject to comprehensive review every five years.
2. The CRMC will provide leadership in collaborative decision-making aimed at promoting intentional design, while ensuring efficiency and effectiveness, in concert with four key state agencies — CRMC, EDC, Department of Administration (DOA), and DEM and through the Bays, Rivers, and Watersheds Coordination Team. Collaborative decision-making will give priority to questions/issues that have statewide implications.
3. The Council will establish such permanent standing subcommittees as may be necessary to manage efficiently and effectively its workload and the full range of its powers and duties.
4. The Council will dedicate requisite effort to its planning, policy-making, and coordination roles.
5. The CRMC will collaborate with DEM, EDC and DOA in managing federal consistency determinations that affect marine resource development.
6. The CRMC will catalyze and unify the response of networks of stakeholders required to implement SAMPs and to cultivate and renew the trust, confidence and support of citizens.
7. The CRMC will attain the level of performance required to implement the MRDP in part through Council and staff development.

## **Actions and Accomplishments For Leadership, Support and Coordination**

- *Sea Level Rise initiative. The CRMC is currently developing new regulations to address sea level rise, a side effect of climate change and global warming, which scientists have declared is already becoming a major concern. The Intergovernmental Panel on Climate change (IPCC) 2007 report states a potential rise in sea level of 18-59 centimeters by 2100. State experts have agreed that for planning purposes, Rhode Island should expect a minimum rise of 3-5 feet by 2100. The actual sea level rise may be higher than that, however, if greenhouse gases are not reduced far before that time.*

*The proposed regulations will be a first for the state, and will not only explain scientific findings on sea level rise and provide historic data supporting this idea, but will serve as a tool for the CRMC and others to better manage development and related concerns taking future sea level rise into account.*

- *Dredging and Dredged Material Disposal: CRMC continued its leadership with regard to dredging issues in Rhode Island. The Council maintained progress on dredging and dredged material disposal by closely coordinating with its partners and other critical stakeholders to ensure that necessary dredging for navigation and recreational boating occurred in an efficient and environmentally-conscious manner.*
- *Operations and management: CRMC worked with the RI legislature to secure and fund a career civil service Public Educator and Information Coordinator. The Council also completed the formalization process for the Deputy Director and Coastal Policy Analyst, and both positions are now permanent. CRMC staff has continued to maintain a high level of performance as well as its reputation for technical expertise, integrity and responsiveness.*
- *In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*
- *The CRMC created its Urban Coastal Greenways (UCG) regulations, an integral part of the revisions to the Providence Harbor (now Metro Bay) Special Area Management Plan (SAMP), which provides for leadership in innovated coastal waterfront redevelopment policies. LID techniques for redevelopment and development projects in urban coastal areas show that management and protection can be achieved while allowing for economic development.*



**Hog Island Shoal Light**

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## Implementation Activities

Implementation of the Marine Resources Development Plan hinges on the internal capabilities of CRMC to provide leadership, utilize design thinking and generate policy guidance for managing the marine resources of the state. These new capabilities will enhance CRMC's effectiveness when working with other agencies as well as coastal communities and will build CRMC's reputation as a partner and ally in managing the state's marine environment. When implemented, these activities will build the internal capabilities of CRMC to achieve the strategies within the MRDP.

Appendix A contains the set of implementation activities that the MRDP has laid-out for the Council to achieve. What follows are three major achievements that highlight those activities.

### 1. Coastal Education Series

One of the major tenets of the MRDP is to transform the Council into more of a policy-setting body. By adopting the MRDP, the opportunity to use the Council's semi-monthly meeting format as a forum for discussion of statewide coastal environmental issues became apparent as exactly meeting that objective. Additionally, to implement recent performance requirements from the Council's federal partner the same opportunity existed to use these meetings as a means to provide the Council 'training' on coastal resource issues. To make this opportunity work, Chairman Michael Tikoian directed that there be established a coastal education series, a progression of presentations in front of the Council that would be used to elucidate the public and inform the council of various programmatic issues, state environmental issues, sister agency programs, and various other state rules and regulations requirements (ie: APA; Open Meetings Law; Ethics Law). It began in August of 2006 and has been a major success.

#### **2006**

Aug 8 <sup>th</sup>	<i>MRDP Update</i>
Sep 26 <sup>th</sup>	<i>Erosion &amp; Coastal Hazards</i>
Oct 10 <sup>th</sup>	<i>Setbacks &amp; Buffers: Urban Areas</i>
Oct 24 <sup>th</sup>	<i>Setbacks &amp; Buffers: Suburban &amp; Rural Areas</i>
Nov 14 <sup>th</sup>	<i>The Public Trust &amp; Takings</i>

#### **2007**

January 23 <sup>rd</sup>	<i>RI Ethics Commission</i>	July 2 <sup>nd</sup>	<i>Marinas &amp; Marina Regulations</i>
February 13 <sup>th</sup>	<i>Permit Procedures</i>	Aug 28 <sup>th</sup>	<i>Residential Dock Status &amp; Trends</i>
February 27 <sup>th</sup>	<i>Administrative Permits</i>	Sep 11 <sup>th</sup>	<i>Special Area Management Plans</i>
March 13 <sup>th</sup>	<i>Water Type Designations</i>	Sep 25 <sup>th</sup>	<i>Public Access</i>
March 27 <sup>th</sup>	<i>Habitat Protection</i>	Oct 9 <sup>th</sup>	<i>Sea Level Rise</i>
April 10 <sup>th</sup>	<i>Geological Concerns</i>	Oct 23 <sup>rd</sup>	<i>Aquatic Invasive Species</i>
April 24 <sup>th</sup>	<i>Sediment Mgmt &amp; Water Quality</i>	Nov 27 <sup>th</sup>	<i>Dredging and Filling</i>
May 8 <sup>th</sup>	<i>Aquaculture</i>	Dec 11 <sup>th</sup>	<i>Greenwich Bay SAMP Forum</i>

#### **2008**

January 8 <sup>th</sup>	<i>MRDP Implementation Update</i>
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Many of the coastal education series presentations above can be found on the Council's website:

<http://www.crmc.ri.gov/presentations/coastaledseries.html>

## 2. Special Area Management Plans

From the MRDP –

*Marine Ecosystem Health: The CRMC will use special area management plans, among other means, to foster the collaborative management of sub-regions of the coast and watersheds to advance ecological stewardship and environmental productivity.*

Special area management plans have been a long-standing tool used by the CRMC to better management the local and special issues associated generally with a watershed or identified area. Currently, the CRMC has adopted five such plans.

Beginning in 1983 with the adoption of the Providence Harbor Special Area Management Plan, the CRMC has employed SAMPs to better manage the coastal zone. In 1984 and 1986, the CRMC adopted SAMPs for the Salt Pond Region and the Narrow River respectively. These efforts were followed by the development and adoption of an interstate management plan, The Pawcatuck River Estuary and Little Narragansett Bay: An Interstate Management Plan, in 1992. Finally, in 2005, the CRMC adopted the Greenwich Bay SAMP. Currently, the CRMC is engaged in updating the Providence Harbor SAMP, now being called the MetroBay SAMP to better identify with and coordinate the numerous issues associated with the communities in upper Narragansett Bay.

Now, with the recognition of the benefits of SAMPs that have been detailed within the MRDP, their elevation as highly productive ecosystem management programs by not only the CRMC but also the National Oceanic Atmospheric Administration, and their identification as significant implementation tools for the MRDP, the CRMC is embarking on additional efforts to develop special area management plans around the state for various purposes.

Special Area Management Plans need to forge new alliances, collaborations and networks for implementation, and obtain tangible, credible commitments from those engaged in the process.

Recent initiatives begun since the adoption of the MRDP are the development of a SAMP for the western side of Aquidneck Island and the formulation of a plan to explore offshore ocean issues that addresses the many uses and potential conflicts that offshore activities may bring to the state.

### The Aquidneck Island SAMP

The Aquidneck Island SAMP, for the western side of Aquidneck Island, will be the sixth SAMP in Rhode Island developed and implemented by the CRMC.

The CRMC – coordinating with the University of Rhode Island's Coastal Resources Center and Sea Grant programs - will work with the towns of Middletown, Newport and Portsmouth to design a plan that encompasses: smart growth requirements set forth by the U.S. Environmental Protection Agency; buffers and setbacks to accommodate the expected mixed-use developments

on the west side of the island; the transfer of federal land from the Navy that is consistent with CRMC regulations and SAMP guidelines; and possible water type changes for that side of Aquidneck Island that will reflect the expected change in use, as envisioned by the towns.

This and other SAMPs are designed to further facilitate the CRMC's recent shift from permitting to a more policy-making focus outlined in the Marine Resources Development Plan, and will continue through additional initiatives and regulation changes. The need for an Aquidneck Island SAMP was also echoed in a recommendation made by the National Oceanic and Atmospheric Administration in its review of the CRMC this fall, where it outlined the western portion of Aquidneck Island as the next region to develop a special area management plan.

The development of the SAMP coincides with the U.S. Navy's planned disposal of land on the west side. The SAMP will also attempt to incorporate many elements of the Aquidneck Island West Side Master Plan which was developed in 2005 by the Aquidneck Island Planning Commission, with the participation of local and state groups and agencies, including CRMC.

The SAMP, like the West Side Master Plan, will have a significant public access component, like other SAMPs, and will encourage the use of low-impact development techniques for redevelopment areas along the western side of the island.

### The Ocean SAMP

Planning for an "Ocean SAMP" has begun such that the CRMC will have in place a better-defined regulatory and planning mechanism for ocean-sited activities, including alternative and renewable energy source projects such as wave or wind energy.

The SAMP boundary will generally be the state waters of Block Island and Rhode Island sounds. Again, the CRMC will work with the University of Rhode Island, notably its newly created Center of Excellence in Offshore Renewable Energy (ORE), as well as the URI Coastal Resources Center and RI Sea Grant programs. A scope of work is being prepared for this effort.

The Ocean SAMP will serve as a tool to facilitate coordination among state and federal agencies, public entities, developers and environmental groups. It will also serve as a regulatory and planning mechanism for the CRMC for all future projects occurring within the management area. And as with all other SAMPs, the public will have extensive opportunities for input throughout the development and adoption process.

The plan will address marine renewable energy issues, marine uses and associated issues, water quality, habitat protection (inland, water and air), public infrastructure and navigation. An important part of this SAMP will also be legal and scientific research that will be conducted to gather a better understanding of the implication of renewable energy projects in legal, natural and man-made environments. The SAMP will also explore the feasibility of establishing off-shore aquaculture sites to utilize the alternative energy structures.

### **3. Section 110 Implementation**

One of the most significant directives the MRDP gave to the CRMC was to evaluate the review procedures for Category B Assents and determine if a standing subcommittee, the executive director and staff, or if the full Council should address this workload.

This task fell to the council's standing subcommittee on policy and program development: the Planning & Procedures subcommittee. After various discussions, it was decided that the RICRMP could be revised to address this implementation activity. Therefore, Section 110 of the RICRMP was proposed to be revised to include a list of activities that could be decided upon administratively after staff review. The list of activities would be those commonly seen by the full council due to programmatic procedures, but which by their nature and associated environmental issues did not necessarily need to be heard by the full council.

However, prior to completing rule-making on this initiative, the Planning & Procedures subcommittee directed staff to hold a workshop to explain the purpose, intent and expectations of the new policy and solicit input on its implementation.

While receiving favorable comments on the initiative and its purpose, one theme was consistently raised at the workshop: how can the public ensure itself that if issues arose over the course of the review of an identified activity, that they were satisfactorily addressed? This is an issue of transparency. By holding a hearing on certain application activities, the Council assures the public of an open and transparent process. This is a major strength of the Coastal Resources Management Council and one that it embraces. By administratively deciding on application activities, the public doesn't get a chance to "see" the process in action. While comments and criticisms are regularly received for any number of proposed permit activities, how each comment and criticism is addressed may not be readily seen in the final approved project, when in fact each was.

So, to address this issue, as a result of the public input gathered at the workshop, the proposed Section 110 regulations were further revised to clearly state that the public will be guaranteed transparent opportunities to be part of the process. One such change was to require that no administrative decision will be made on a listed activity until a minimum of 20 days have elapsed from the time staff completes their reports on the application. Also, a second added requirement was that if any listed application activity received an objection, then the full council would review and decided on the application.

The revisions were well received and have made the implementation of this section valuable to the council.

The following table illustrates the implementation of this MRDP directive.

Table 1: RICRMP Section 110 Actions

<b>Permit Applications Acted on Administratively</b>	
<b>Application Types – January 2007 though December 2007</b>	
Residential Docks*	37
Structural Shoreline Protection	4
Harbor Management Plans**	1
Boat/Float Lifts	1
Single Family Dwelling/Addition	1
Aquaculture	1
Condos	1
<b>TOTALS</b>	<b>46</b>
*Sent to Full Council	2
**Tabled	1

As Table 1 shows, the majority of “Section 110” activities consisted of residential docks. Within this group of activities were two (2) applications that qualified for Section 110 review, but because the Council had received a comment and/or objection during the 30-day public notice period, these applications were required to be heard by the full Council, the result of implementing public comment received on the proposed regulations.

Also, as seen, one application – that of a municipal harbor plan – was tabled due to policy considerations at the Council’s Planning & Procedures subcommittee regarding outhauls. Because this policy development is on-going, the Section 110 review couldn’t be completed as it was felt that the issue is better managed once a more robust policy is established on outhauls.

This implementation activity specifically addressed an efficiency issue, but also addressed a much larger and significant issue identified throughout the MRDP: that the CRMC become a policy leader and policy-setting body; that it become a “listening post” by developing the capacity to identify “...trends in the state’s coastal development and marine resource conditions.” And, by specifically addressing this implementation activity, that the council position itself to create a capacity for developing “...vision, strategic leadership, coalitions and networks [that] think in multiple dimensions in parallel (environmental, economic, social, and cultural).”

A “next step” for the Council to consider is to make itself more efficient by further defining those activities that can be reviewed under Section 110 such that it builds additional capacity for the Council as the state’s policy leader and policy-setting body for coastal resources.



## **What's Next?**

### SAMPs

The CRMC is a proven national leader in the development and implementation of special area management plans. The MRDP recognizes this and directs the CRMC to continue to develop these value-added coastal resource management tools.

The CRMC will use its current capacities to develop cooperative and coordinated special area management for Aquidneck Island and the Ocean resource areas of our state's offshore waters.

### Marine Infrastructure

Upon the completion of dredging the state's main transportation corridor – the Providence River Shipping Channel – the CRMC took over the management of the CAD cell disposal option for that project and has turned it into an economic development and environmental management tool. To-date, the disposal of dredged materials into the CAD cells has realized over \$1.5 million in revenue for the state, with the potential for millions more.

The management of these cells for benefit of the state will remain a high priority of the CRMC.

Additionally, with the recent development and adoption of revised marina regulations that account for better management of resources and efficiencies, the CRMC will look at commercial marine facilities regulations that seek to accomplish similar efficiencies, in keeping with the MRDP's economic development visions.

Also, with the recent development and adoption of the CRMC's Clean Marina Certification program, the CRMC will work with DEM and the marine trades industry to certify the many marinas of the state as Clean Marinas, in an effort to promote a clean marine environment and assist the industry in its efforts to remain viable.

### Policy Capacity Building

A significant policy development of the CRMC's has been the recognition of the potential harm to the states coastal resources from the impacts of Sea Level Rise. While a policy has been developed by the CRMC and is being vetted by the public, additional work remains for the implementation of the regulations. Primarily this will include a highly coordinated efforts with the state's building commission office to incorporate and mitigate for the impacts of sea level rise.

Section 110 implementation has resulted in the CRMC staff managing activity applications that previously were required to be heard by the full council. The success of this implementation could lead the full council to consider additional activities for Section 110 review, thereby building for the council additional capacity for policy discussion.

### Habitat Restoration

Since its passage by the General Assembly for FY2003, the state's Coastal and Estuarine Habitat Restoration Trust Fund has been met with significant interest. Many local boards and commissions, land trusts and environmental advocacy groups have successfully petitioned for funding that has resulted in new restoration projects being constructed. Over this period \$7 million has been additionally leveraged against the state's annual allotment.

The CRMC will continue its partnership with DEM and Save the Bay to keep this program a success.

### Aquaculture

In conjunction with the CRMC's efforts to develop an Ocean SAMP, particularly when siting offshore energy-related structures, efforts to utilize those structures for potential aquaculture activities is being discussed as a synergistic approach to maximizing space limitations and minimizing use conflicts.

### Coordination

The CRMC continues to be an active participant in the state's Bays, Rivers and Watersheds Coordination Team and will recognize the Team as a primary vehicle for inter-agency collaboration among the seven appointed agencies.



## **Appendices**

Appendix A: MRDP: Implementation Activities: 2006 - 2011

Appendix B: MRDP: Looking Forward

Appendix C: MRDP Vision Accomplishments

Appendix D: Greenwich Bay Accomplishments



## **Appendix A:**

### **MRDP: Implementation Activities 2006-2011**

Implementation of the MRDP hinges on the internal capabilities of CRMC to provide leadership, utilize design thinking and generate policy guidance for managing the marine resources of the state. These new capabilities will enhance CRMC's effectiveness when working with other agencies as well as coastal communities and will build CRMC's reputation as a partner and ally in managing the state's marine environment. When implemented, the following activities will build the internal capabilities of CRMC to achieve the strategies within the MRDP.

1. The CRMC will strive to have vision, strategic leadership, coalitions and networks and think in multiple dimensions in parallel (environmental, economic, social, and cultural).
2. The CRMC will participate as an active partner of the Coordination Team for Rhode Island's Bays, Rivers and Watersheds and recognize the Team as a primary vehicle for inter-agency collaboration among the seven appointed agencies.
3. The CRMC will sharpen its monitoring expertise to become a premier "listening post" for identifying trends in the state's coastal development and marine resource conditions. The staff will combine this information along with permit data to identify and estimate development patterns and to analyze water types and levels of use to determine how best to effectively manage resources. The CRMC will work with and draw upon the information generated by the Environmental Monitoring Collaborative and Economic Monitoring Collaborative in its policy, planning and self-monitoring of performance.
4. The CRMC will augment its performance monitoring system to serve as a source of guidance in strategy and decision making, for setting priorities, and to aid in the federal Section 312 review process.
5. The CRMC will work with the Statewide Planning Program to incorporate the MRDP as an element of the State Guide Plan. This new element will reinvigorate the original intent of the Guide Plan as a "means for centralizing, integrating, and monitoring long-range goals, policies, plans and implementation activities related thereto." (RI G.L. 42-11-10 d).
6. The CRMC will, in partnership with other Coordination Team members, promote in Rhode Island the establishment of four or five mega-watersheds/economic sub-regions—with one or more SAMPs incorporated in each. These sub-regions will take advantage of CRMC's jurisdiction over tidal waters but will allow for incorporating other agencies' regulatory jurisdictions. These mega-watershed initiatives will become magnets for public and private resources.
7. The CRMC will pursue linkages with academic institutions and research organizations that are studying trends in the coast's conditions, uses, and ecological changes and that are formulating innovative place designs and marine resource uses.
8. The CRMC will sharpen its monitoring expertise to become a premier "listening post" for identifying trends in the state's coastal development and marine resource conditions. The staff will combine this

information along with permit data to identify and estimate development patterns and to analyze water types and levels of use to determine how best to effectively manage resources.

9. The CRMC will evaluate the review procedures for Type B assents and contested cases and determine if a standing subcommittee, the executive director and staff, or if the full Council should address this workload.
10. The CRMC will conduct an assessment of the cumulative results-to-date of the 1983 Red Book as amended, focusing on the effects at the municipal level as well as by water area type. The CRMC recognizes that water use zoning is a powerful design tool that can be refined through such activities as drafting new SAMPs, and can help other state agencies and municipalities to rethink their policies and regulatory programs.
11. The CRMC will select one or two priority areas within which to begin developing a mosaic of SAMPs (see Figure 9). SAMPs need to forge new alliances, collaborations and networks for implementation, and obtain tangible, credible commitments from those engaged in the process. The following is a list of priority candidates for new special area management plans:
  - East Passage/Aquidneck Island
  - The Bay Islands/Upper Bay
  - State coastal waters of Rhode Island and of the neighboring states of Massachusetts and Connecticut
  - West Passage
  - Mount Hope Bay
  - Sakonnet River

## **Appendix B**

### **MRDP: Looking Forward: A Vision of the Future from the Marine Resources Development Plan**

It is envisioned that the following will result from implementing the MRDP:

- Rhode Islanders are ensuring that a broad mix of recreational access and opportunity is always available, forming a mosaic of highly diverse offerings that meets the needs of different age groups.
- The “Top of the Bay” is among the world’s premier urban waterfronts, where private investment is an engine in the Rhode Island economy, and quality design is a source of collective identity and pride.
- Coastal recreation is an integral part of the ordinary life of the average Rhode Islander. Current levels of public access are being continuously maintained and improved. Eco-tourism expands, making a contribution to the greenways, seascapes and landscapes along rivers and protected areas. The Bay Islands become fully incorporated as a key element of the new level of enjoyment and access to the state’s coastal treasures.
- New ways of decision-making find advocates of economic development and environmental protection working jointly as stewards of the Bay and marine resources. Developers have become “place makers” – i.e. demonstrating concern for their coastal locations rather than for just individual parcels and sites. The Naval Underwater Warfare Center, Raytheon and the University of Rhode Island are partnering to create new industries in coastal security and estuary management. A larger portion of Rhode Island’s economy is based on international trade. Socially, the state becomes more integrated as the population stabilizes and education for recent immigrants is improved. Flourishing traditional centers boost waterborne transport and communication, and offer new sources of employment for skilled labor.
- Marine waters and habitat are also managed as a natural provider of food and protein, taking advantage of gains in pollution reduction and treatment efficiency. Sustainable harvest policies and improved habitats allow fisheries to recuperate. This ecologically driven economic production provides the resolve to resist forms of development that would otherwise generate excessive pollution and other negative impacts. Rhode Island’s environmental policy shifts towards collective dedication to resource stewardship and value intensification. In doing so, Rhode Island completes its migration away from an extractive model to a stewardship model. As a result, Rhode Island’s remarkably diverse tidewater areas are the finest waterfront system in the United States.



## Appendix C: MRDP Vision Accomplishments

### VISION: Marine Ecosystem Health

- *The Special Area Management Plans realize this goal. The Coastal Resources Management Council (CRMC) is authorized under the federal Coastal Zone Management Act of 1972 to develop and implement Special Area Management Plans (SAMPs) to address specific regional issues. These plans are ecosystem-based management strategies that are consistent with the council's legislative mandate to preserve and restore ecological systems. The CRMC coordinates with local municipalities, as well as government agencies and community organizations, to prepare the SAMPs and implement the management strategies.*
- *Implemented and ongoing SAMPs include the Greenwich Bay SAMP, which was adopted in 2005 and the Metro Bay SAMP, which is currently under development. The Greenwich Bay SAMP was developed in part in response to the increase in marina and boating activity and recreational use of the Bay and watersheds. The Metro Bay SAMP aims to provide an environmentally responsible vehicle for redevelopment of the Cranston, Pawtucket, East Providence and Providence waterfronts, through its designated Areas of Particular Concern. The CRMC also recently began work on an Aquidneck Island SAMP.*
  - *In the **Metro Bay SAMP**, the following issues are being addressed:*
    - **Floodplain Management**
      1. *Expansion of the floodplain due to fill, infill development, sea level rise, runoff, and shoreline change;*
      2. *Increased flooding impacts from additional infrastructure and populations in the floodplain;*
      3. *Increased impacts to recreational marine facilities and boaters;*
      4. *Impact of existing and potential shoreline debris during a storm;*
      5. *Lack of a regional hydrodynamic model to predict the extent and impacts of flooding; and,*
      6. *Government capacity to implement mitigation plans and respond to coastal floods.*
- *The CRMC, through its Urban Coastal Greenways (UCG) regulations, an integral part of the revisions to the Providence Harbor (now Metro Bay) Special Area Management Plan (SAMP), now requires LID techniques for redevelopment and development projects in urban coastal areas. The UCG regulations require this type of activity on the urban waterfronts of the cities of Cranston, Providence, East Providence and Pawtucket, valuable waterfront property aiding in these cities' urban revitalizations. The CRMC requires all applicants seeking permits to develop in the Metro Bay SAMP to demonstrate that their project design has been reviewed by someone with a Master Design Low Impact Development Certificate. The URI Coastal Resources Center has been offering certification classes for LID components and how to apply them to urban coastal settings.*

- *In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*
- *Since the General Assembly created the state Coastal and Estuarine Habitat Restoration Program and Trust Fund in 2003, and tasked the CRMC with creating the program and forming a Habitat Restoration Team to select projects for funding, the CRMC has approved 25 habitat restoration projects and additional research. It has provided \$750,000 in funds and has leveraged \$9 million in additional funding. Upcoming projects include Narrow River and Brushneck Cove habitat restoration.*
- *Habitat Restoration: The CRMC continued to provide leadership for two ongoing federal restorations projects – the South Coast Habitat Restoration Project and the Allin's Cove Habitat Restoration Project. The Council also significantly contributed to the development and administration of the Rhode Island Coastal and Estuarine Habitat Restoration Program.*
- *Coastal Buffer Zone Program: The CRMC initiated a thorough review of its coastal buffer zone policy. The Council is developing a Greenwich Bay Suburban Buffer Zone Policy and an Urban Coastal Greenway Policy to address specific challenges that have been encountered during implementation of the Coastal Buffer Zone Program.*
- *Special Area Management Plans: CRMC completed and adopted the Greenwich Bay SAMP and initiated the Metro Bay SAMP. Working with its partners, CRMC has used SAMPs as a tool for refining statewide coastal policy in specific geographical areas. The resulting policies are not only more effective and better coordinated, but they also facilitate consistent and predictable decision-making at all levels of government.*
  - *As part of the Greenwich Bay SAMP, the council worked closely with many partners; significant among them was the Department of Environmental Management. In so doing, the SAMP was successful in the coordination of the issue of water quality management for the watershed, as it incorporated and is the implementation of the Department's TMDL for Greenwich Bay. Total Maximum Daily Limits are water quality restoration plans that identify water quality goals, necessary pollutant reductions to achieve these goals, the sources of pollution believed responsible for the pollution problems, and the necessary pollution control actions to achieve the required reductions and support the waterbody's designated uses. These water quality restoration plans are in essence a prescription for the waterbody's return to a safe and healthy aquatic ecosystem.*

### **VISION: Marine Economic Development**

- *In fall of 2006, the CRMC extensively revised its program Section 300.4 - Residential Boating Facilities. The comprehensive regulations call for more building and expansion standards, and*



*encourage marina expansion outside of tidal waters using incentives. Marinas will also be directed, as a first order of business, to look within their existing perimeters to ensure they have the most efficient layouts before expanding further into tidal waters. In late 2004, CRMC Chairman Michael M. Tikoian in a letter to Executive Director Grover Fugate, asked the CRMC staff to begin developing new regulations with more detailed policies, standards and reviews.*

- The CRMC, through its Urban Coastal Greenways (UCG) regulations, an integral part of the revisions to the Providence Harbor (now Metro Bay) Special Area Management Plan (SAMP), now requires LID techniques for redevelopment and development projects in urban coastal areas. The UCG regulations require this type of activity on the urban waterfronts of the cities of Cranston, Providence, East Providence and Pawtucket, valuable waterfront property aiding in these cities' urban revitalizations. The CRMC requires all applicants seeking permits to develop in the Metro Bay SAMP to demonstrate that their project design has been reviewed by someone with a Master Design Low Impact Development Certificate. The URI Coastal Resources Center has been offering certification classes for LID components and how to apply them to urban coastal settings. (this item also falls under Section 700.2.)*
- In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay. (this item is also listed under Sections 700.2 and 700.4)*
- Marina Management: CRMC employed a variety of marine management measures to address increased recreational boating in Rhode Island. In order to balance the goals of providing access to recreation and protection of environmental and aesthetic resources, the Council "down-zoned" water types in certain embayments, rendering them ineligible for new marina construction or existing marina expansion. The Council began a comprehensive revision of its marina regulations to address controversial expansion issues. CRMC also incorporated effective BMPs into a formal operations and management plan for Rhode Island marinas.*
- Aquaculture: CRMC continued its leadership with regard to the development and expansion of aquaculture in Rhode Island. The Council contributed its time and expertise to innovative projects that advanced the RIAI.*

### **VISION: Marine Resources Use and Enjoyment**

- In February 2007, the CRMC adopted its new Clean Marina Program, designed to protect the state's coastal waters and benefit the marina industry in Rhode Island. The Clean Marina Program is a voluntary initiative designed to reward marinas that go beyond regulatory requirements by applying innovative pollution prevention best management practices (BMPs) to their day-to-day operations. The program was developed by the CRMC with the cooperation of the R.I. Marine Trades Association, R.I. Department of Environmental Management (DEM), and Save The Bay.*

- *In June 2007 the CRMC adopted major revisions to Section 300.18 – Submerged Aquatic Vegetation, renaming it Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern. The revised regulations provide the Council with stronger grounds for denial of an application where impacts on SAV are substantial or cannot be avoided or minimized, or if the proposed activity is adjacent to or includes a restoration site and/or the site includes the sole sources of SAV habitat in that area. These regulations also address docks that might span SAV.*
- *Public Access: CRMC worked to promote and to improve public access in Rhode Island through the permitting process, the ROW Program and the harbor management planning process. The Council worked with its partners to develop a comprehensive public access plan for the Quonset Business Park. CRMC also updated its popular public access guide to Rhode Island's coastal waters.*
- *Land Acquisition: Working with its partners, the CRMC developed the Rhode Island CELCP Plan and submitted it to OCRM. The plan is a comprehensive and coordinated planning document that assesses Rhode Island's priority coastal and estuarine land conservation needs and provides clear guidance to applicants for nominating and selecting coastal and estuarine land conservation projects within Rhode Island.*

### ADDITIONAL ACTIONS:

- *Beach nourishment using dredged materials (i.e. South Coast Restoration Project)*
- *Eelgrass plantings – Ninigret*
- *Five (5) recently adopted CRMC ROWs in Bristol*
- *Adopt-an-Access Program*

### VISION: Leadership, Support and Coordination

- *Sea Level Rise initiative. The CRMC is currently developing new regulations to address sea level rise, a side effect of climate change and global warming, which scientists have declared is already becoming a major concern. The Intergovernmental Panel on Climate change (IPCC) 2007 report states a potential rise in sea level of 18-59 centimeters by 2100. State experts have agreed that for planning purposes, Rhode Island should expect a minimum rise of 3-5 feet by 2100. The actual sea level rise may be higher than that, however, if greenhouse gases are not reduced far before that time.*

*The proposed regulations will be a first for the state, and will not only explain scientific findings on sea level rise and provide historic data supporting this idea, but will serve as a tool for the CRMC and others to better manage development and related concerns taking future sea level rise into account.*

- *Dredging and Dredged Material Disposal: CRMC continued its leadership with regard to dredging issues in Rhode Island. The Council maintained progress on dredging and dredged material disposal by closely coordinating with its partners and other critical stakeholders to ensure that necessary dredging for navigation and recreational boating occurred in an efficient and environmentally-conscious manner.*
- *Operations and management: CRMC worked with the RI legislature to secure and fund a career civil service Public Educator and Information Coordinator. The Council also completed the formalization process for the Deputy Director and Coastal Policy Analyst, and both positions are now permanent. CRMC staff has continued to maintain a high level of performance as well as its reputation for technical expertise, integrity and responsiveness.*



## Appendix D

### Accomplishments: Greenwich Bay Special Area Management Plan

- The CRMC approved the Warwick Sewer Authority's ("WSA") Mandatory Sewer Connection Program. This program was developed because of a CRMC permit requirement (Assent 2000-04-50) that was issued to the WSA for work on sewer line extensions in Warwick. The first phase of implementation of the mandatory sewer connection program began in January 2006. The mandatory connection program was revised in April 2006 (with CRMC approval) and posted on the WSA web site at: <http://www.warwickri.gov/citygov/boardscom/warwicksewerauth.htm>. This mandatory sewer connection program is a requirement, as specified in Sections 470.3 and 940.3 of the Greenwich Bay SAMP. Moreover, this program, once fully implemented and all connections completed, will likely have the greatest single impact on improving water quality in Greenwich Bay. In the past four and one-half years (2003 to date), over 5200 homes have been connected to new or existing sewer lines in Warwick.
- The Greenwich Bay SAMP recommends wastewater management programs for areas that are not planned for municipal sewers as detailed in Section 470.3B.7. The WSA is investigating several wastewater treatment options for the Potowomut area, an area not likely to be sewered because of its location within the City. The CRMC has met with and advocated that the WSA consider developing and adopting a wastewater management inspection and maintenance program for onsite systems, in accordance with the above SAMP recommendation rather than a package treatment facility for Potowomut. Results of the WSA feasibility study for Potowomut are due by early spring 2008.
- As recommended in Section 470.3B.6, the General Assembly has approved legislation to require the phase-out of all cesspools in the state, with first emphasis along the coastline within CRMC jurisdiction. DEM in collaboration with CRMC are currently working on regulations to implement the Cesspool Phase-out Act to eliminate these out-dated and inadequate methods of sewage disposal.
- The East Greenwich wastewater treatment facility (WWTF) completed construction modifications of their facility in March 2006, which significantly decreases nitrogen concentrations in the discharge effluent to achieve a total nitrogen limit of 5mg/L. This wastewater treatment facility modification is identified as a recommendation in Section 470.4. In addition, the Narragansett Bay Commission reached agreement with RIDEM in June 2006 to reduce effluent nitrogen concentrations at the Bucklin Point and Fields Point wastewater treatment facilities (See <http://www.narrabay.com/>). This effort will help to lower Narragansett Bay nitrogen loading contributions to Greenwich Bay.
- RIDEM has completed development of a water quality restoration plan, known as a Total Maximum Daily Loading (TMDL), for Greenwich Bay and its tributaries, which was approved by the USEPA in March 2006. A copy of the TMDL can be downloaded at the following web site: <http://www.dem.ri.gov/programs/benviron/water/quality/rest/reports.htm>. The CRMC is working with DEM, the City of Warwick, and others to achieve full implementation of this

important water quality plan as recommended in Greenwich Bay SAMP Section 470.5. The CRMC is also working on its Suburban Buffer/Low-Impact Development (LID) program, and there is pending stormwater legislation to address LID (H6143). The buffer/LID program will integrate a public education and professional training program to provide better stormwater management and improve water quality in Greenwich Bay.

- As recommended in Section 470.6C.1, the CRMC worked in cooperation with the RI Marine Trades Association and RIDEM to develop and implement a Clean Marina Program (CMP), which was adopted by the Council in February 2007. This comprehensive pollution prevention certification program will further promote environmentally responsible marina and boating practices. The CMP aims to increase public awareness of boater best management practices and no-discharge requirements. The CRMC is also working to advertise compliance with a clean marina program to attract clients and educate the community of the marinas' role in marine resources stewardship. You can review and download program elements at: <http://www.crmc.ri.gov/projects/cleanmarinas.html>. CRMC now also prohibits discharges from boats with people living aboard within marina facilities
- In support of the above Clean Marina program, the CRMC has adopted revisions to RICRMP Section 300.4 to address marinas and recreational boating facilities. The amendments establish more specific marina and dock standards and became effective in November 2006. For more information see: <http://www.crmc.ri.gov/regulations/index.html>.
- The CRMC and DEM are cooperatively working to revise the existing Rhode Island Stormwater Design and Installations Standards Manual to incorporate more current performance standards and low impacts development techniques that will improve stormwater runoff quality and further protect aquatic habitat in Greenwich Bay and throughout RI. See a draft version of the manual at: <http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/index.htm>.
- The CRMC is presently developing a permitting process to authorize pre-existing shellfish docks in Greenwich Bay in accordance with Section 680.1A. This effort will help to sustain affordable dock space for commercial shellfishermen within Greenwich Bay.
- The CRMC has already identified and designated approximately 40 acres of quahog resource preserves adjacent to Mary's Creek and at the mouth of Greenwich Cove (adjacent to Chepiwanoxet Point), as specified in Section 390.2. Accordingly, we are well on our way to meeting the 50 acre goal by 2010 set forth in Section 120.3A.1.
- Section 390.5A recommends that the CRMC work with the City of Warwick and others to restore degraded tidal wetlands. The CRMC has coordinated with the City, URI, and NRCS to restore several acres of tidal wetland at the top of Warwick Cove adjacent to Warwick Neck Avenue near the intersection with Samuel Gorton Avenue. Invasive Phragmites was removed from the coastal wetland and portions were regraded to achieve necessary elevations to sustain regular tidal flooding. The salt marsh and adjacent upland area have been planted with native and sustainable plantings. In addition, existing stormwater drainage in the vicinity has been redirected into a stormwater treatment device to remove oil and sediment before being discharged into the cove and improve water quality.

- The CRMC is the local sponsor collaborating with the Army Corps of Engineers, the City of Warwick, RIDEM, and others on a potential habitat and water quality restoration project within Brushneck Cove. Senator Jack Reed was instrumental in appropriating \$100,000 for this feasibility study. At a recent public community meeting with ACOE, the CRMC was informed that a draft feasibility report for this restoration project is in preparation and will be issued in July of this year.
- As a result of a project with Jon Boothroyd at URI, the CRMC now has a series of maps delineating shoreline changes between 1939, 1978, and 2003 for Greenwich Bay. These maps will be valuable in assessing critical habitat, priority land acquisition, and identifying high erosion prone areas. The maps are now available online at: <http://www.crmc.ri.gov/regulations/proposedregs/shorechangemaps.html> and will be adopted by the CRMC as a rule change on June 19.
- The “Guide to Coastal Resources Management Council – Designated Rights-of-Way to Greenwich Bay” was published in 2005 and is currently available from the CRMC web site: <http://www.crmc.ri.gov/samp/greenwichbay.html>. The CRMC also offers an “Adopt-An-Access” program to help maintain and preserve public access along the state’s shoreline, including Greenwich Bay (See: [http://www.crmc.ri.gov/news/2006\\_0720\\_warwickrow.html](http://www.crmc.ri.gov/news/2006_0720_warwickrow.html)). The CRMC continues to encourage the public and neighborhood groups to adopt CRMC ROWs to further protect them and to maintain them to the benefit of all Rhode Islanders.
- The CRMC held a “Greenwich Bay Public Forum” on October 25, 2007 to update citizens on monitoring and research activities in Greenwich Bay and have public discussion on Greenwich Bay issues. The Forum included presentations from CRMC, DEM, DOH, and Volunteer water quality monitors.