

# **Program Assessment and Strategy for Enhancement**

**Performed Pursuant to Section 309 of the  
Coastal Zone Management Act of 1972 as  
Amended**

**Prepared by the  
Rhode Island Coastal Resources Management Council**

**September 2020**

## Table of Contents

Summary of Recent 309 Achievements.....	4
Wetlands .....	5
Coastal Hazards .....	7
Public Access.....	18
Marine Debris .....	28
Cumulative and Secondary Impacts .....	30
Special Area Management Planning .....	33
Ocean and Great Lakes Resources .....	39
Energy and Government Facility Siting.....	44
Aquaculture .....	48
Coastal Hazards Strategy .....	52
Public Access Strategy .....	57
Summary of Stakeholder and Public Comment .....	62
Appendix A.....	63

## Introduction

The Coastal Zone Enhancement Program encourages state and territorial coastal management programs to strengthen and improve their federally approved coastal management programs in one or more of nine areas. These “enhancement areas” include wetlands, coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management plans, ocean and Great Lakes resources, energy and government facility siting, and aquaculture. The enhancement program was established under Section 309 of the Coastal Zone Management Act (CZMA), as amended.

Every five years, states and territories are encouraged to conduct self-assessments of their coastal management programs to determine problems and enhancement opportunities within each of the nine enhancement areas—and to assess the effectiveness of existing management efforts to address identified problems. Each coastal management program identifies high priority management issues as well as important needs and information gaps the program must fill to address these issues.

This is the seventh Assessment and Strategy that the Rhode Island Coastal Resources Management Council (CRMC) has submitted under §309 of the federal Coastal Zone Management Act. Six previous assessments were prepared. As in previous assessments, this one is directed at the nine §309 enhancement areas delineated by the Congress. Each is discussed in a separate chapter using a template provided by the National Oceanic and Atmospheric Administration (NOAA).

This document combines the section 309 Assessment and Strategy requirements into a single document. It contains an assessment of the RICRMP for each of the nine areas contained in section 309, and the Council's strategy for enhancing the RICRMP in the two areas identified as high priority (Coastal Hazards and Special Area Management Plans). These priority areas were determined using input from an online survey administered to stakeholders that included state and nonprofit agencies, municipalities, private sector trade organizations, academia and CRMC staff. Stakeholders were asked to rank each of the nine enhancement areas as a high, medium or low priority. Concurrently, CRMC completed Phase I assessments for all nine enhancement areas, the results of which are included in this document. The results of these assessments contributed to the identification of Coastal Hazards and Special Area Management Plans as high priority areas and provided the basis for further (Phase II) analyses and strategy development. In addition “coastal hazards” has been designated as an enhancement area of national importance for this assessment cycle per NOAA CZMA Section 309 Guidance.

## Summary of Recent 309 Achievements

Since the last assessment cycle, significant progress has been made towards the goals and objectives set out in the 2015-2020 Assessment and Strategy, specifically towards implementation of the strategies developed for Wetlands and Coastal Hazards.

In the area of Coastal Hazards, CRMC has developed the Shoreline Change Special Area Management Plan (Beach SAMP), which was adopted in June of 2018. The Beach SAMP describes and categorizes the coastal hazards of storm surge, sea level rise and erosion, provides information on the vulnerability of different aspects of coastal communities to these hazards (transportation and other infrastructure, residential and commercial development, etc.), and outlines a process for considering and adapting to future coastal hazard risk when planning development. The Beach SAMP relies upon the suite of coastal hazard assessment tools previously developed by CRMC such as the STORMTOOLS inundation and suggested design elevation maps, the updated shoreline change maps for the south coast and Block Island, the Sea Level Affecting Marshes Model that was run statewide, and the Coastal Environmental Risk Index maps.

Most recently the CRMC has taken the risk assessment process outlined in the Beach SAMP and developed a worksheet and online viewer to assist applicants. These tools have been made available on the CRMC website and are intended to educate and inform applicants of potential future risks to their property. Results from these analyses are recorded as stipulations within the issued CRMC assent to provide the same information to any future prospective buyers of the property.

In the area of Coastal Wetlands, the CRMC has worked in partnership with other agencies and organizations to finalize its Coastal Wetland Restoration Strategy, which includes a list of action items to be undertaken by the statewide working group that helped to develop the strategy. The CRMC has also overseen development and implementation of the Marsh Rapid Assessment Method (MarshRAM), which has been used to characterize coastal wetlands statewide and assess their vulnerability to stressors, particularly sea level rise.

# Wetlands

**Section 309 Enhancement Objective:** Protection, restoration, or enhancement of the existing coastal wetlands base, or creation of new coastal wetlands. §309(a)(1)

*Note: For the purposes of the Wetlands Assessment, wetlands are “those areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” [33 CFR 328.3(b)]. See also pg. 174 of the CZMA Performance Measurement Guidance<sup>1</sup> for a more in-depth discussion of what should be considered a wetland.*

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

## **Resource Characterization:**

Total statewide acreage of all vegetated wetland types as reported in the US Fish and Wildlife Service’s 2014 National Wetlands Inventory was 63,377 acres. Of special concern to the CRMC are the state’s estuarine intertidal wetlands, particularly salt marsh. Total statewide acreage of wetlands classified as Vegetated Estuarine Intertidal by the 2014 NWI was 3,799 acres. Landward retreat of marsh edges, widening and headward expansion of tidal channel networks, loss of marsh islands, and the development and enlargement of interior depressions found on the marsh platform have been observed statewide over the past two decades. Recent assessments estimate the rate of loss of salt marsh over the past 40 years to be approximately 17% (Watson et al. 2017). The results of the [Sea Level Affecting Marshes Model](#) (SLAMM) that was run statewide in 2014 indicate that under a 5 foot sea level rise scenario, Rhode Island is likely to lose over 80% of its existing intertidal marshes.

## **Management Characterization:**

1. *Indicate if there have been any significant changes at the state or territory level (positive or negative) that could impact the future protection, restoration, enhancement, or creation of coastal wetlands since the last assessment.*

---

<sup>1</sup> <https://coast.noaa.gov/czm/media/czmapmguide2018.pdf>  
Section 309 Program Assessment & Strategy 2021  
RI Coastal Resources Management Council

### Significant Changes in Wetland Management

Management Category	Significant Changes Since Last Assessment (Y or N)
Statutes, regulations, policies, or case law interpreting these	N
Wetlands programs (e.g., regulatory, mitigation, restoration, acquisition)	Y

2. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
- a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

The CRMC completed the [Rhode Island Coastal Wetland Restoration Strategy](#) in March of 2018 in partnership with the RI Natural History Survey and the Narragansett Bay National Estuarine Research Reserve. This was a 309 supported task from the 2015 assessment. The purpose of the strategy is to create a framework for future coastal wetland restoration and enhancement activities, and to articulate a vision, goals and objectives for what we hope will become a more formalized state restoration and assessment program. The strategy is intended to guide future management and funding decisions to ensure the best possible use of public funds to preserve coastal wetland functions and services.

#### Enhancement Area Prioritization:

1. *What level of priority is the enhancement area for the coastal management program?*

**High**            \_\_\_\_\_  
**Medium**          X    
**Low**             \_\_\_\_\_

2. *Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.*

This enhancement area was rated as high priority by four of eight respondents to the 309 Assessment and Strategy public survey and ranked 3<sup>rd</sup> in priority of all of the enhancement areas. Given recent progress in strategy development in this area, the CRMC plans to focus on implementation activities in the near term. It's possible that a new strategy will be developed for the next Section 309 Assessment and Strategy (2026).

\*\*\*\*\*

## Coastal Hazards

**Section 309 Enhancement Objective:** Prevent or significantly reduce threats to life and property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level change. §309(a)(2)

*Note: For purposes of the Hazards Assessment, coastal hazards include the following traditional hazards and those identified in the CZMA: flooding; coastal storms (including associated storm surge); geological hazards (e.g., tsunamis, earthquakes); shoreline erosion (including bluff and dune erosion); sea level rise; Great Lake level change; land subsidence; and saltwater intrusion.*

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

**General Level of Hazard Risk in the Coastal Zone**

Type of Hazard	General Level of Risk <sup>2</sup> (H, M, L)
Flooding (riverine, stormwater)	H
Coastal storms (including storm surge)	H
Geological hazards (e.g., tsunamis, earthquakes)	L
Shoreline erosion	M (location dependent)
Sea level rise	H
Great Lakes level change	n/a
Land subsidence	M
Saltwater intrusion	M (unknown)
Other (please specify)	

1. *If available, briefly list and summarize the results of any additional data or reports on the level of risk and vulnerability to coastal hazards within your state since the last assessment.*

From the CRMC’s Shoreline Change Special Area Management Plan:

- A Shoreline Change SAMP analysis of projected future shoreline change suggested that the RI south shore could experience a total change of -89 meters (-292 feet) by 2065 and -216 meters (-708 feet) by 2100.
- A CRMC-led assessment found that 27,431 (11.5%) of the residential structures in Rhode Island’s coastal communities are exposed to the combined effects of sea level rise and storm surge under the Shoreline Change SAMP’s Long-range Planning Scenario (a 7-foot

<sup>2</sup> Risk is defined as “the estimated impact that a hazard would have on people, services, facilities and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage.” *Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001*

SLR + a 100-year storm surge). Residential structures included in this assessment were single and multi-family homes, seasonal homes, mobile homes, camps, and other residential structures listed in the state's E-911 database. By percentage, the most exposed community is Barrington, with 64.4% (6,100) of its residential structures exposed. This assessment did not include access roads, onsite wastewater treatment systems or other elements ancillary to the primary residential structure.

- 3,082 (18.9%) of the commercial structures in Rhode Island's coastal communities are exposed to the combined effects of sea level rise and storm surge under the Long-range Planning Scenario. Commercial structures in this assessment included all lodging, farm, and other commercial structures listed in the state's E-911 database. Providence has the highest number of exposed structures (993, or 23.2%) whereas Barrington has the highest percentage of its commercial structures exposed (70.8%, or 154 structures). Importantly, findings about Providence are valid with regard to the impacts of sea level rise but may overestimate damage due to storm surge. This is because this assessment assumed that the Fox Point Hurricane Barrier is not present. The barrier was originally designed to address storm surge, based on conditions at the time, but not sea level rise.
- 566, or 13.8%, of the public service structures (i.e. emergency service facilities such as police and fire department structures and ambulance houses; healthcare facilities; and government, educational and public gathering structures) in Rhode Island's coastal communities are exposed under the Long-range Planning Scenario. Newport has the greatest number of such structures exposed (110 structures, or 31.8%) whereas some communities have a greater percentage of their public service structures exposed (e.g. Warren at 55%, or 38 structures).
- A RI Department of Health study which utilized conservative sea level rise projections (2.8-foot sea level rise in Providence by 2084, a 2.92-foot sea level rise in Newport by 2084, and a 5-foot "worst-case scenario," by 2084) found that by 2084, 20 drinking water utilities in the state may be impacted by sea level rise and 11 by coastal flooding.
- A RI Statewide Planning Program transportation study found that up to 85 miles of road are expected to flood under a 5-foot SLR scenario, 70% of which are local roads which do not qualify for federal transportation funding.
- A study commissioned by the RI Historic Preservation and Heritage Commission found that there are 1,971 National Register-listed or eligible assets located in FEMA-mapped flood zones, with 72.9% located in just the five municipalities of Newport, North Kingstown, Warren, Bristol, and Westerly. These results are conservative because this study did not consider SLR or changing future conditions.

#### **Management Characterization:**

1. *In the tables below, indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) have occurred that could impact the CMP's ability to prevent or significantly reduce coastal hazards risk since the last assessment.*

#### **Significant Changes in Hazards Statutes, Regulations, Policies, or Case Law**

Topic Addressed	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Elimination of development/redevelopment in high-hazard areas <sup>3</sup>	Y	Y	Y
Management of development/redevelopment in other hazard areas	Y	Y	Y
climate change impacts, including sea level rise or Great Lakes level change	Y	Y	Y

### Significant Changes in Hazards Planning Programs or Initiatives

Topic Addressed	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Hazard mitigation	Y	N	N
Climate change impacts, including sea level rise or Great Lakes level change	Y	Y	Y

### Significant Changes in Hazards Mapping or Modeling Programs or Initiatives

Topic Addressed	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Sea level rise or Great Lakes level change	Y	Y	Y
Other hazards	Y	Y	Y

2. *Briefly state how “high-hazard areas” are defined in your coastal zone.*

In general, “high hazard” refers to areas delineated on FEMA Flood Rate Insurance Map within the VE Zone, or areas with a 1 percent or greater chance of flooding in a given year and an additional hazard associated with coastal storm waves. These include the ocean shrorefront of the towns of Westerly, Charlestown, South Kingstown and Narragansett, which are vulnerable to coastal flooding with a considerable amount of existing development in flood-prone areas (Salt Ponds SAMP, RICRMC 1999).

Since the last assessment, the CRMC in partnership with the University of Rhode Island has developed a Coastal Environmental Risk Index (CERI), which maps structural damage risk under the 100 year storm event for different sea level rise scenarios into categories of moderate, high, severe and extreme. These maps are available as part of the Shoreline Change SAMP suite of coastal hazard assessment tools. The information has also been incorporated into an application for mobile devices.

<sup>3</sup> Use state’s definition of high-hazard areas.

3. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
  - a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

Since the last assessment, coastal hazards have been a strong area of focus for the CRMC. Major changes in this area include:

1. Development of STORMTOOLS coastal inundation maps
2. Development of STORMTOOLS Design Elevation (SDE) maps
3. Update and completion of Shoreline Change Maps for Washington County and Block Island
4. Development and adoption of the Shoreline Change Special Area Management Plan (“Beach SAMP”) in June 2018
5. Development and application of the Coastal Environmental Risk Index
6. Development of the Coastal Hazards Application Worksheet and Online Viewer

### **STORMTOOLS**

Developed in partnership with the University of Rhode Island, [STORMTOOLS](#) is an interactive mapping tool publicly accessible through ArcGIS Online. It allows users to view the predicted level of inundation from storm surge and sea level rise at specific locations, for multiple scenarios.

[STORMTOOLS Design Elevation \(SDE\) Maps](#) use advanced modeling of coastal storms to suggest design elevations for structures in specific locations based on the 100 year storm event under various sea level rise scenarios. Per state law (RIGL § 45-24-31(12)) the SDE maps predicting 3 feet of sea level rise may be substituted for FEMA FIRMs for the purposes of calculating maximum building height.

STORMTOOLS represents a significant change in the area of sea level change modeling and mapping. Development of STORMTOOLS was a 309-driven change (PSM funding) with additional funding from federal HUD grants.

### **Shoreline Change Maps**

The CRMC, in partnership with Eastern Connecticut State University, has added to its existing suite of [shoreline change maps](#) by completing updated shoreline change maps for Washington County that reflect the annual average erosion rates from 1939 to 2014, and creating new maps for Block Island that reflect the average annual erosion rates from 1952 to 2016.

Shoreline change map updates represent a significant change to mapping of coastal erosion hazards. There has been some additional work done to model future erosion rates and develop future erosion rate factors for predicting future risk. Shoreline change map updates were a NOAA-supported, 309-driven change.

### **Shoreline Change Special Area Management Plan**

Recognizing the need for comprehensive planning to address the impacts of storm surge, flooding, sea level rise and erosion, the CRMC initiated the development of the Rhode Island [Shoreline Change Special Area Management Plan \(SAMP\)](#). The Shoreline Change SAMP is comprised of two volumes. Volume 1 provides a synthesis of the current scientific understanding of sea level rise, storm surge, tidal flooding, and coastal erosion, as well as the impacts these hazards pose to infrastructure, other developed property such as municipal buildings and residential properties, and the social, environmental and cultural assets in Rhode Island; a description of the tools developed to model and map potential future impacts from these coastal hazards; a discussion of risk and risk management within the coastal zone; and recommendations for best management practices and adaptation strategies or techniques to be employed at both the state and local level to minimize future risk. Volume 2 contains all the technical reports that support the new research conducted as part of the SAMP project. These technical reports contain more detailed information on research methodology and findings and ultimately support the synthesis provided in Volume 1. The SAMP was adopted on June 12, 2018.

The Shoreline Change Special Area Management Plan represents a significant change in the area of hazards planning programs, and was a 309-driven change, along with additional funding sources.

### **Coastal Environmental Risk Index (CERI)**

The Coastal Environmental Risk Index (CERI), first developed in 2016, is a method to assess the risk and damage to structures and infrastructure resulting from storm surges, including the effects of sea level rise. The mapping tool provides information about the extent of predicted damage to a structure in a given location from a 100 year storm under various sea level rise scenarios. The online mapping tool was developed for the communities of Westerly, Charlestown, South Kingstown, Narragansett, Barrington, Bristol, Warren and Warwick. A mobile app has also been developed to provide CERI information for any coastal location in the state.

The development of the Coastal Environmental Risk Index represents a significant change in the area of hazards mapping programs, and was partially supported by 309 PSM funds.

### **Coastal Hazards Application (CHA) and Online Viewer**

The Coastal Hazards Application was developed as an informational and educational tool that some CRMC applicants are required to use to assess the risks to their project from coastal hazards (sea level rise, storm surge, erosion). The application and online viewer guide the applicant through a process that assesses future risk to their project based on a chosen structure design life. The application and viewer combine results from STORMTOOLS sea level rise maps, SDE maps and CERI maps, as well as shoreline change and marsh migration maps. Applicants must record the required information on the worksheet, sign it and submit it with their CRMC assent application. The results from the CHA are then recorded by CRMC staff within the issued assent. This means that the information will also be recorded in the property's land evidence records and available to future owners.

The Coastal Hazards Application is an extension of the Beach SAMP effort, and represents a significant change in hazards planning programs.

**Enhancement Area Prioritization:**

1. *What level of priority is the enhancement area for the coastal management program?*

High        X    
 Medium            
 Low              

2. *Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.*

This area was ranked as high priority by eight of eight respondents to the online stakeholder survey, and many of the stakeholder comments received addressed coastal hazards (see Summary of Stakeholder and Public Comment). The issue has been recognized as important within multiple state planning documents, including [Resilient Rhody: An Actionable Vision for Addressing the Impacts of Climate Change in Rhode Island](#).

\*\*\*\*\*

**PHASE II (IN-DEPTH) ASSESSMENT**

**In-Depth Resource Characterization:**

*Purpose: To determine key problems and opportunities to improve the CMP’s ability to prevent or significantly reduce coastal hazard risks by eliminating development and redevelopment in high-hazard areas and managing the effects of potential sea level rise and Great Lakes level change.*

1. *Based on the characterization of coastal hazard risk, what are the three most significant coastal hazards<sup>4</sup> within your coastal zone? Also indicate the geographic scope of the hazard, i.e., is it prevalent throughout the coastal zone, or are there specific areas most at risk?*

	Type of Hazard	Geographic Scope (throughout coastal zone or specific areas most threatened)
Hazard 1	Sea Level Rise	Throughout coastal zone (primarily low-lying shorelines)
Hazard 2	Storm Surge	Throughout coastal zone (primarily low-lying shorelines)
Hazard 3	Erosion	Throughout coastal zone (primarily high energy shorelines such as the south coast)

2. *Briefly explain why these are currently the most significant coastal hazards within the coastal zone. Cite stakeholder input and/or existing reports or studies to support this assessment.*

<sup>4</sup> See list of coastal hazards on pg. 24 of this assessment template.

These hazards have been identified through the Shoreline Change SAMP stakeholder process as most significant and are the focus of the SAMP. The significance of these hazards has been reinforced by the STORMTOOLS maps that show flooding scenarios for various storm return periods, Coastal Environmental Risk Index (CERI) maps and STORMTOOLS Design Elevation (SDE) maps. Coastal hazards was ranked as an area of high importance by all online survey respondents, many of whom commented on flood risk from storms and sea level rise.

3. *Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.*

Emerging Issue	Information Needed
Salt water intrusion, elevation of the groundwater table due to SLR	Measurements of changes in groundwater salinity and coastal water table depths over time
Economic impacts of adaptation practices	Economic analysis related to adaptation options

**In-Depth Management Characterization:**

*Purpose: To determine the effectiveness of management efforts to address identified problems related to the coastal hazards enhancement objective.*

1. *For each coastal hazard management category below, indicate if the approach is employed by the state or territory and if there has been a significant change since the last assessment.*

**Significant Changes in Coastal Hazards Statutes, Regulations, and Policies**

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Change Since the Last Assessment (Y or N)
Shorefront setbacks/no build areas	Y	N	N

<b>Management Category</b>	<b>Employed by State/Territory (Y or N)</b>	<b>CMP Provides Assistance to Locals that Employ (Y or N)</b>	<b>Significant Change Since the Last Assessment (Y or N)</b>
Rolling easements	Y	N	N
Repair/rebuilding restrictions	Y	Y	N
Hard shoreline protection structure restrictions	Y	N	Y
Promotion of alternative shoreline stabilization methodologies (i.e., living shorelines/green infrastructure)	Y	N	Y
Repair/replacement of shore protection structure restrictions	Y	N	N
Inlet management	Y	N	N
Protection of important natural resources for hazard mitigation benefits (e.g., dunes, wetlands, barrier islands, coral reefs) (other than setbacks/no build areas)	Y	Y	Y
Repetitive flood loss policies (e.g., relocation, buyouts)	Y	N	N
Freeboard requirements	Y	N	N
Real estate sales disclosure requirements	Y	N	Y
Restrictions on publicly funded infrastructure	Y	N	N
Infrastructure protection (e.g., considering hazards in siting and design)	Y	N	Y
Other (please specify)			

**Significant Changes to Coastal Hazard Management Planning Programs or Initiatives**

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Change Since the Last Assessment (Y or N)
Hazard mitigation plans	Y	N	Y (updated 2018)
Sea level rise/Great Lake level change or climate change adaptation plans	Y	N	Y
Statewide requirement for local post-disaster recovery planning	Y	N	N
Sediment management plans	Y	N	N
Beach nourishment plans	Y	N	N
Special Area Management Plans (that address hazards issues)	Y	N	Y
Managed retreat plans	N	N	N
Other (please specify)			

**Significant Changes to Coastal Hazard Research, Mapping, and Education Programs or Initiatives**

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Change Since the Last Assessment (Y or N)
General hazards mapping or modeling	Y	N	Y
Sea level rise mapping or modeling	Y	N	Y
Hazards monitoring (e.g., erosion rate, shoreline change, high-water marks)	Y	N	Y
Hazards education and outreach	Y	Y	Y
Other (please specify)			

2. *Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state’s management efforts in addressing coastal hazards since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state’s management efforts?*

Information regarding changes to proposed project designs resulting from the CRMC’s Coastal Hazards Analysis process would be a useful metric in tracking the effectiveness of the Beach SAMP in reducing risk to coastal property.

**Identification of Priorities:**

1. *Considering changes in coastal hazard risk and coastal hazard management since the last assessment and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve its*

*ability to more effectively address the most significant hazard risks. (Approximately 1-3 sentences per management priority.)*

*Management Priority 1: Improved outreach and communication to municipalities regarding coastal hazard risk with the goal of influencing local zoning ordinances.*

*Description:* Changes to the state building code and local zoning ordinances have potential to address some of the risks associated with coastal hazards and steer future development away from high risk areas. Outreach and communication of information and tools developed since the last assessment may help to influence change at the state and local level. This may include workshops or site visits to showcase projects implemented under other efforts such as the Shoreline Adaptation Inventory and Design project, or tutorials on the updated Coastal Hazards Application process that may inform zoning decisions or changes such as establishing coastal hazard overlay areas.

*Management Priority 2: Update and consolidation of STORMTOOLS and other web-based resources*

*Description:* STORMTOOLS maps and viewers are currently hosted on the [www.Beachsamp.org](http://www.Beachsamp.org) website under various headings and descriptions. The CRMC will work with URI CRC and EDC to consolidate these disparate tools under one ArcGIS Online Hub location that is more user-friendly, and to update tools such as the Coastal Environmental Risk Index, which is currently only available for a subset of municipalities. Information from other efforts, such as the Shoreline Adaptation Inventory and Design project will be integrated with or linked to the STORMTOOLS hub over time.

*Management Priority 3: Municipal training and guidance on shoreline adaptation practices*

*Description:* The CRMC will use information gathered from other efforts such as the Shoreline Adaptation Inventory and Design project (NFWF funded) and monitoring and modeling efforts by URI GSO to produce guidance on the siting and selection of shoreline adaptation practices.

2. Identify and briefly explain priority needs and information gaps the CMP has for addressing the management priorities identified above. The needs and gaps identified here should not be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Research	Y	Impacts of SLR on groundwater resources, monitoring of shoreline erosional and depositional processes (ground-based LiDAR and bathymetry data collection), wave environments and effectiveness of different shoreline adaptation practices
Mapping/GIS/modeling	Y	In house GIS expertise for development of mapping / planning tools, modeling of different shoreline adaptation practices for decision-making
Data and information management	Y	Maintenance of existing tools and datasets, consolidation and improvement of public interface of STORMTOOLS products
Training/Capacity building	Y	Communications training, particularly related to climate change and risk assessment, municipal training on coastal hazards risk assessment and shoreline adaptation
Decision-support tools	Y	Guidance on siting and construction of shoreline adaptation practices based on monitoring and modeling results
Communication and outreach	Y	Continued outreach and communication of STORMTOOLS, Coastal Hazard Application and evaluating coastal hazard risk.
Other (specify)		

**Enhancement Area Strategy Development:**

1. Will the CMP develop one or more strategies for this enhancement area?

Yes          x    
No               

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

It is expected that Coastal Hazards will be a main area of focus for the CRMC over the next five years. The issue has been recognized as important within multiple state planning documents, including [Resilient Rhody: An Actionable Vision for Addressing the Impacts of Climate Change in Rhode Island](#).

## Public Access

**Section 309 Enhancement Objective:** Attain increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value. §309(a)(3)

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. Use the table below to provide data on public access availability within the coastal zone.

**Public Access Status and Trends**

Type of Access	Current number <sup>5</sup>	Changes or Trends Since Last Assessment <sup>6</sup> (↑, ↓, -, unkwn)	Cite data source
Beach access sites	10	Increase of three state beaches since last assessment	<a href="http://www.dem.ri.gov/programs/bpoladm/plandev/pdf/scorp19-d.pdf">http://www.dem.ri.gov/programs/bpoladm/plandev/pdf/scorp19-d.pdf</a>
Shoreline (other than beach) access sites	226 CRMC designated public rights-of-way to the shore (ROW)	Five new ROWS have been designated since the previous report period.	<a href="http://www.crmc.ri.gov/publicaccess/ROW_RI_2018.pdf">http://www.crmc.ri.gov/publicaccess/ROW_RI_2018.pdf</a>
Recreational boat (power or nonmotorized) access sites	46	↓	DEM Rec. Fish and Boat Access Guide dbase; <a href="http://www.exploreri.org/waterTrails.php">http://www.exploreri.org/waterTrails.php</a> (Paul Jordan, RIDEM, pers. comm.)

<sup>5</sup> Be as specific as possible. For example, if you have data on many access sites but know it is not an exhaustive list, note “more than” before the number. If information is unknown, note that and use the narrative section below to provide a brief qualitative description based on the best information available.

<sup>6</sup> If you know specific numbers, please provide. However, if specific numbers are unknown but you know that the general trend was increasing or decreasing or relatively stable or unchanged since the last assessment, note that with a ↑ (increased), ↓ (decreased), – (unchanged). If the trend is completely unknown, simply put “unkwn.”

Type of Access	Current number <sup>5</sup>	Changes or Trends Since Last Assessment <sup>6</sup> (↑, ↓, -, unkwn)	Cite data source
Number of designated scenic vistas or overlook points	5	One new scenic overlook has been added since the previous assessment. The previous assessment reported no officially designated coastal scenic overlooks, and while this remains technically accurate, all five roadways listed here include scenic vistas of the coast and in some cases parking areas where motorists can stop and enjoy if not “official”, at least de facto scenic vistas/overlooks.	<a href="http://www.dot.ri.gov/community/scenicroadways.php">http://www.dot.ri.gov/community/scenicroadways.php</a>
Number of fishing access points (i.e. piers, jetties)	84	--	DEM Rec. Fish and Boat Access Guide dbase
Coastal trails/boardwalks <i>(Please indicate number of trails/boardwalks and mileage)</i>	1) Five “Urban Coastal Greenway” trails established via regulatory stipulations as promulgated by the CRMC’s Metro Bay Special Area Management Plan (SAMP) 2) East Bay Bike Path (13.8 miles) 3) Newport Cliffwalk (3.5 miles)	Three additional urban coastal greenways have been established since the previous assessment	<a href="http://www.crmc.ri.gov/publicaccess/ROW_RI_2014.pdf">http://www.crmc.ri.gov/publicaccess/ROW_RI_2014.pdf</a> ; <a href="http://www.riparks.com/Locations/LocationEastBay.html">http://www.riparks.com/Locations/LocationEastBay.html</a> ; <a href="http://www.cliffwalk.com/">http://www.cliffwalk.com/</a> ; Personal communication, Dave Reis, CRMC Supervising Biologist
Number of acres parkland/open space	1) Eight coastal state parks 2) 15,856 acres total	No change since previous assessment	<a href="http://www.riparks.com/">http://www.riparks.com/</a> ; personal communication, Paul Jordan, DEM GIS Specialist
Access sites that are Americans with Disabilities Act (ADA) compliant <sup>7</sup>	Unknown		

<sup>7</sup> For more information on ADA see [www.ada.gov](http://www.ada.gov).

Type of Access	Current number <sup>5</sup>	Changes or Trends Since Last Assessment <sup>6</sup> (↑, ↓, -, unknw)	Cite data source
1) Nature Preserves 2) Coastal Natural Areas (these sites collectively provide physical, visual, and interpretive access)		No change since previous assessment	<a href="http://www.riparks.com/Locations/LocationJohnHChafee.html">http://www.riparks.com/Locations/LocationJohnHChafee.html</a> <a href="http://www.crm.c.ri.gov/regulations/RICRMP.pdf">http://www.crm.c.ri.gov/regulations/RICRMP.pdf</a> Section 1.2.2(D)

2. Briefly characterize the demand for coastal public access and the process for periodically assessing demand. Include a statement on the projected population increase for your coastal counties. There are several additional sources of statewide information that may help inform this response, such as the Statewide Comprehensive Outdoor Recreation Plan,<sup>8</sup> the National Survey on Fishing, Hunting, and Wildlife Associated Recreation,<sup>9</sup> and your state’s tourism office.

“Ocean State Outdoors”, Rhode Island’s Comprehensive Outdoor Recreation Plan, State Guide Plan Element 152, August 29, 2019 reports the following:

- 37.2% INCREASE IN BEACH VISITATION ALONE FROM 2010 TO 2017, 9.4 MILLION VISITORS ANNUALLY TO THE PARK SYSTEM
- In the 2018 Rhode Island Outdoor Recreation Survey, Rhode Islanders expressed a preference for a wide range of outdoor recreation resources. When asked to indicate how important it is to provide various types of park and recreation facilities, Rhode Islanders showed the greatest preference for:
  - wilderness (64% indicating very important) environmental and outdoor education(58% indicating very important)
  - recreation at lakes and ponds (51% indicating very important)
  - trails for non-motorized activities (50% indicating very important), and
  - boat launches (45% indicating very important).
    - Respondents tended to prefer:
      - activities that involve spending time in nature such as hiking, biking, and horseback riding (58%)
      - a preference for recreation at the water such as going to the beach (49%), and
      - outdoor cultural events (47%).

<sup>8</sup> Most states routinely develop “Statewide Comprehensive Outdoor Recreation Plans”, or SCROPs, that include an assessment of demand for public recreational opportunities. Although not focused on coastal public access, SCROPs could be useful to get some sense of public outdoor recreation preferences and demand. Download state SCROPs at [www.recpro.org/scorp-library](http://www.recpro.org/scorp-library).

<sup>9</sup> The National Survey on Fishing, Hunting, and Wildlife Associated Recreation produces state-specific reports on fishing, hunting, and wildlife associated recreational use for each state. While not focused on coastal areas, the reports do include information on saltwater and Great Lakes fishing, and some coastal wildlife viewing that may be informative and compares 2016 data to 2011, 2006 and 2001 information to understand how usage has changed. See [www.wsfrprograms.fws.gov/subpages/nationalsurvey/national\\_survey.htm](http://www.wsfrprograms.fws.gov/subpages/nationalsurvey/national_survey.htm)

Regarding the periodic assessment of demand, this report includes a summary of the results of an Outdoor Recreation Demand Survey as follows: DEM conducted a general outdoor recreation demand survey using Survey Monkey®. The public was invited to share their thoughts about outdoor recreation preferences and needs including questions about frequency of use, willingness to pay, and reasons for participating in outdoor recreation activities. 575 individuals participated in the survey. The survey was publicized and promoted through press releases, DSP helped with partner organizations, social media, and at focus group meetings.

3. If available, briefly list and summarize the results of any additional data or reports on the status or trends for coastal public access since the last assessment.

Clean Ocean Access (COA), a Rhode Island based NGO with a mission that includes promoting and improving public access to the shore, has set a goal of adopting every CRMC designated ROW on Aquidneck Island under the CRMC's Adopt-An-Access initiative. The following summary indicates progress to date in the three municipalities that occur on Aquidneck Island:

#### City of Newport

23 CRMC rights of way exist in Newport and some are at risk with fences appearing in new places, waterfront development taking away access and other that have an ocean view but no way of getting in the ocean. As sea level rises (or sinks) we need to make sure access to the coastline remains. We monitor all rights of way twice monthly. To date, COA has adopted 23 of the CRMC rights of way and are actively working with CRMC on designation of the 24th right of way.

#### Town of Middletown

10 CRMC rights of way exist in Middletown and some are at risk with fences appearing in new places, waterfront development taking away access and other that have an ocean view but no way of getting in the ocean. As sea level rises (or sinks) we need to make sure access to the coastline remains. We monitor all rights of way twice monthly. To date, we have adopted 7 of the CRMC rights of way and are actively working on adopting the remaining locations.

#### Town of Portsmouth

17 CRMC rights of way exist in Portsmouth and some are at risk with fences appearing in new places, waterfront development taking away access and other that have an ocean view but no way of getting in the ocean. As sea level rises (or sinks) we need to make sure access to the coastline remains. We monitor all rights of way twice monthly. To date, we have adopted 0 of the CRMC rights of way and are actively working on adopting the 3 locations along Common Fence Point as a pilot program and then expanding to the rest of the rights of ways.

### **Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if there have been any significant state- or territory-level management changes (positive or negative) that could impact the future provision of public access to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.*

### Significant Changes in Public Access Management

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	Y	Y
Operation/maintenance of existing facilities	Y	Y	N
Acquisition/enhancement programs	Y	Y	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
- a. Describe the significance of the changes;
    - i. A RI Supreme Court decision ruled against the state’s contention that a two-mile long stretch of sandy beach in the Town of Westerly had been dedicated to the public via a 1909 plat map, a disappointing result considering that while existing ROWs along this stretch of beach can still be used to access the public portion of the beach which is located below the mean high tide line, is typically underwater  
<http://nsglc.olemiss.edu/casealert/may-2017/kilmartin.pdf>
    - ii. Seven new “Adopt-An-Access” MOUs have been signed since the previous assessment, bringing the total number of CRMC ROWs adopted to 42
  - b. Specify if they were 309 or other CZM-driven changes; and
    - i. Item “i” above is not a 309 driven change
    - ii. Item “ii” above is a CZM driven change
  - c. Characterize the outcomes or likely future outcomes of the changes.
    - i. The RI Supreme Court ruling has significantly impacted public access along the two-mile stretch of sandy beach in Westerly as its ruling makes clear that the dry portion of beach for which a public right of use was formerly at least arguable is now made incontrovertibly clear that the public is excluded from using it.
    - ii. The significance of the seven newly adopted ROWs lies in its indicating that public interest in preserving and protecting CRMC ROWs remains strong.

3. Indicate if your state or territory has a publically available public access guide. How current is the publication and how frequently it is updated?<sup>10</sup>

**Publically Available Access Guide**

Public Access Guide	Printed	Online	Mobile App
State or territory has? (Y or N)	Y	Y	Y
Web address (if applicable)		<a href="http://bit.ly/1bp9DRt">http://bit.ly/1bp9DRt</a>	
Date of last update	2004	2019	
Frequency of update	Print version no longer updated	Continual as new access sites are established	

**Enhancement Area Prioritization:**

1. What level of priority is the enhancement area for the coastal management program?

High        X    
 Medium            
 Low              

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

On the NGO side of things, both Clean Ocean Access and Save The Bay have approached the CRMC regarding their interest in working with the agency toward establishing new ROWs and improving existing ones to further promote public access to the shore. With respect to municipal government, the City of Providence Planning Department, the Town of Warren Harbor Commission, and the Town of Westerly Conservation Commission have also contacted CRMC to work with the agency to respectively establish a new kayak launch site, designate four new ROWs, and restore access to overgrown ROWs. In addition, CRMC enforcement staff regularly receives requests from private citizens regarding the problem of obstructed ROWs. These are only a few examples that indicate a consistently strong demand from various stakeholders regarding the critical importance of public access to the shore.

Through the stakeholder survey and public comment portions of this 309 Assessment and Strategy development process, the CRMC received numerous comments regarding public access, requesting that it be made a high priority area. Those comments are summarized in the public comment section of this document.

\*\*\*\*\*

**PHASE II (IN-DEPTH) ASSESSMENT**

<sup>10</sup> Note some states may have regional or local guides in addition to state public access guides. Unless you want to list all local guides as well, there is no need to list additional guides beyond the state access guide. You may choose to note that the local guides do exist and may provide additional information that expands upon the state guides.

**In-Depth Resource Characterization:**

*Purpose: To determine key problems and opportunities to improve the CMP’s ability to increase and enhance public access opportunities to coastal areas.*

1. *What are the three most significant existing or emerging threats or stressors to creating or maintaining public access within your coastal zone? Indicate the geographic scope of the stressor, i.e., is it prevalent throughout the coastal zone or are specific areas most threatened? Stressors can be private development (including conversion of public facilities to private); non-water-dependent commercial or industrial uses of the waterfront; increased demand; erosion; sea level rise or Great Lakes level change; natural disasters; national security; encroachment on public land; or other (please specify). When selecting significant stressors, also consider how climate change may exacerbate each stressor.*

	<b>Stressor/Threat</b>	<b>Geographic Scope</b> (throughout coastal zone or specific areas most threatened)
Stressor 1	Lack of adequate public parking	Throughout coastal zone, adjacent to CRMC designated Rights of Way
Stressor 2	Erosion / SLR interfering with lateral shoreline access	Throughout coastal zone, particularly seaward of structural shoreline protection where beach / coastal feature has eroded
Stressor 3	Misleading signage posted by private property owners	Throughout coastal zone, particularly adjacent to beachfront / waterfront residential lots.

2. *Briefly explain why these are currently the most significant stressors or threats to public access within the coastal zone. Cite stakeholder input and/or existing reports or studies to support this assessment.*

Designated public parking, or a lack thereof, has been noted in multiple annual CRMC Progress Reports on Rights of Way to the Tidal Areas of the State ([www.crmc.ri.gov/publicaccess.html](http://www.crmc.ri.gov/publicaccess.html)) as a “significant detriment to their [designated ROWs’] use by the public at large.” Multiple CRMC ROW progress reports cite the RI Superior Court Case (C.A. No. 03-3985, Filed August 4, 2004), which established that ROWs may be improved to allow for vehicular access and parking. This precedent could be utilized to improve and expand public parking at ROWs statewide.

Structural shoreline protection practices are a significant threat to lateral shoreline access—the public’s ability to walk along the shoreline, particularly during high tide. Hardened structures such as stone revetments often exacerbate erosion of the sediment directly seaward of them, and are built at such a scale that they cannot be traversed. This means that the beach in front of these structures often becomes impassable, especially during high tide. Sections of Green Hill Beach in South Kingstown are examples of locations where such erosion has occurred over time.

The CRMC receives a high volume of complaints relating to misleading signage posted by coastal property owners. Most often these signs are displayed during the summer months, when pedestrian traffic is high, and they are typically intended to give the impression to the public that they are trespassing on private property. In some instances these signs have discouraged the public from exercising their state constitutional rights to “fish from the shore, gather seaweed, leave the shore to swim in the sea and pass along the shore.”

3. Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.

Emerging Issue	Information Needed
Public use conflicts related to COVID-19 pandemic	Summary of enforcement complaints, information from municipalities, PDs
Mean High Water determinations	Reasonable proxy for MHW that can be applied in the field to address issues of public access / trespass

**In-Depth Management Characterization:**

*Purpose: To determine the effectiveness of management efforts to address identified problems related to the public access enhancement objective.*

1. For each additional public access management category below that was not already discussed as part of the Phase I assessment, indicate if the approach is employed by the state or territory and if significant changes (positive or negative) have occurred at the state or territory level since the last assessment.

**Significant Changes to Public Access Management**

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Comprehensive access management planning	Y		N
GIS mapping/database of access sites	Y		N
Public access technical assistance, education, and outreach (including access point and interpretive signage, etc.)	Y		N
Other (please specify) Regulatory Changes	Y		Y

2. For management categories with significant changes since the last assessment, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information.
- Describe significant changes since the last assessment;
  - Specify if they were 309 or other CZM-driven changes; and
  - Characterize the outcomes or likely future outcomes of the changes.

Recent updates to the RICRMP have addressed the issue of public access as it relates to structural shoreline protection (RICRMP Section 1.3.1(G)). These program revisions were a 309-driven change from the 2016 309 Assessment and Strategy. The changes specifically address lateral shoreline access impacts caused by shoreline protection

structures, and seek to avoid or mitigate those impacts. The section now requires that lateral access be maintained in front of all shoreline protection measures. Any impacts to lateral access necessitate a lateral access plan that provides appropriate on-site access similar to that which was impacted.

3. *Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state's management efforts in providing public access since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state's management efforts?*

The most recent CRMC Progress Report on Rights of Way to the Tidal Areas of the State was released in 2018 (available at [www.crmc.ri.gov/publicaccess/ROW\\_RI\\_2018.pdf](http://www.crmc.ri.gov/publicaccess/ROW_RI_2018.pdf)), and identifies a total 226 designated ROWs for Rhode Island's 420 miles of shoreline, as well as 356 potential ROW locations reviewed by the agency. In addition, the report identifies sites that are currently under review, not resolved, or for which there is insufficient evidence for designation, and summarizes CRMC staff and ROW Subcommittee activities.

#### **Identification of Priorities:**

1. *Considering changes in public access and public access management since the last assessment and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve the effectiveness of its management effort to better respond to the most significant public access stressors. (Approximately 1-3 sentences per management priority.)*

*Management Priority 1:* Assess and enhance public parking at CRMC-designated rights of way.

*Description:* Assess public parking at CRMC ROWs, and identify those where parking is absent, inadequate or needs to be enhanced. Develop program changes or guidance that builds upon RI State Superior Court precedent to ensure adequate public parking at all CRMC-designated ROWs.

*Management Priority 2:* Establish clear parameters for residential signage in shoreline areas.

*Description:* Minimize confusion regarding public shoreline access by developing guidance for residential property owners who wish to install signage along the shoreline. Parameters should include signage type (e.g. permanent vs. temporary), materials, location and wording.

2. *Identify and briefly explain priority needs and information gaps the CMP has to help it address the management priorities identified above. The needs and gaps identified here do not need to be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.*

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Research	N	
Mapping/GIS	Y	Updated imagery associated with ROW online database and map
Data and information management	Y	Information on parking availability at ROW sites
Training/Capacity building	N	
Decision-support tools		
Communication and outreach	Y	Outreach to municipalities regarding ROW parking and shoreline signage
Other (specify)		

**Enhancement Area Strategy Development:**

1. Will the CMP develop one or more strategies for this enhancement area?

Yes          X    
 No               

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

While this enhancement area was not initially designated as high priority based on stakeholder feedback or internal agency discussion, this is an issue that has received increasing public attention, especially during the COVID-19 pandemic as access has been limited at state beaches and parks out of concern for public health. The CRMC received multiple emails regarding the topic of public access in response to the request for public comment on the draft version of this document (see public comment section of this document).

\*\*\*\*\*

## Marine Debris

**Section 309 Enhancement Objective:** Reducing marine debris entering the nation’s coastal and ocean environment by managing uses and activities that contribute to the entry of such debris. §309(a)(4)

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *In the table below, characterize the existing status and trends of marine debris in the state’s coastal zone based on the best-available data.*

### Existing Status and Trends of Marine Debris in Coastal Zone

Source of Marine Debris	Significance of Source (H, M, L, unkwn)	Type of Impact <sup>11</sup> (aesthetic, resource damage, user conflicts, other)	Change Since Last Assessment (↑, ↓, -, unkwn)
Beach/shore litter	L	Aesthetic, resource damage	unkwn
Land-based dumping	L	Aesthetic, resource damage	unkwn
Storm drains and runoff	M	Resource damage	unkwn
Land-based fishing (e.g., fishing line, gear)	M	Aesthetic, resource damage, user conflicts	unkwn
Ocean/Great Lakes-based fishing (e.g., derelict fishing gear)	M	Aesthetic, resource damage, user conflicts	unkwn
Derelict vessels	L		↑
Vessel-based (e.g., cruise ship, cargo ship, general vessel)	L		unkwn
Hurricane/Storm	(event dependent)	Aesthetic, resource damage	↓
Tsunami	n/a		
Other (please specify)			

2. *If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends or potential impacts from marine debris in the coastal zone since the last assessment.*

No state-specific data or reports available at this time.

#### **Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if there have been any significant state- or territory-level management changes (positive or negative) for how marine debris is managed in the coastal zone.*

### **Significant Changes in Marine Debris Management**

<sup>11</sup> You can select more than one, if applicable.

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Marine debris statutes, regulations, policies, or case law interpreting these	Y	N	N
Marine debris removal programs	Y	N	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
- Describe the significance of the changes;
  - Specify if they were 309 or other CZM-driven changes; and
  - Characterize the outcomes and likely future outcomes of the changes.

Since the last assessment the state’s abandoned vessel program has become operational. Rhode Island’s Department of Environmental Management is the lead agency that administers the derelict and abandoned vessel program for the state. The Rhode Island Derelict and Abandoned Vessel and Obstruction Removal Commission is responsible for reviewing abandoned vessel removal applications, providing funding and prioritizing vessel removals. CRMC participates in the program, whose committee meets twice per year. The program committee grants reimbursement for derelict vessel removal activities, as well as ongoing assistance to prevent vessel abandonment.

**Enhancement Area Prioritization:**

1. What level of priority is the enhancement area for the coastal management program?

High \_\_\_\_\_  
Medium \_\_\_\_\_  
Low   X  

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

This area was ranked as high priority by four of eight online survey respondents. It was not designated as high priority for this assessment as CRMC is not the lead agency for the majority of marine debris activities in the state.

\*\*\*\*\*

## Cumulative and Secondary Impacts

consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources. §309(a)(5)

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *Using National Ocean Economics Program Data on population and housing,<sup>12</sup> please indicate the change in population and housing units in the state’s coastal counties between 2012 and 2017. You may wish to add additional trend comparisons to look at longer time horizons as well (data available back to 1970), but at a minimum, please show change over the most recent five-year period data is available (2012-2017) to approximate current assessment period.*

**Trends in Coastal Population and Housing Units**

	2012	2017	Percent Change (2012-2017)
Number of people	1,054,601	1,056,486	0.18%
Number of housing units	464,684	468,241	0.77%

2. *Using provided reports from NOAA’s Land Cover Atlas,<sup>13</sup> please indicate the status and trends for various land uses in the state’s coastal counties between 1996 and 2016. You may use other information and include graphs and figures, as appropriate, to help illustrate the information. Note that the data available for the islands may be for a different time frame than the time periods reflected below. In that case, please specify the time period that the data represent. Also note that Puerto Rico currently only has data for one time point so will not be able to report trend data. Instead, Puerto Rico should just report current land use cover for developed areas and impervious surfaces.*

Population and housing growth has slowed somewhat since the last assessment period, resulting in an overall reduction in the rate of conversion of undeveloped lands to developed land uses. The state is currently in the process of acquiring high resolution aerial orthophotography that will be used to update the 2011 Land Use / Land Cover and Impervious Cover statewide datasets. An emerging area of concern is the conversion of undeveloped lands

<sup>12</sup>[www.oceaneconomics.org/Demographics/PHresults.aspx](http://www.oceaneconomics.org/Demographics/PHresults.aspx). Enter “Population and Housing” section and select “Data Search” (near the top of the left sidebar). From the drop-down boxes, select your state, and “all counties.” Select the year (2012) and the year to compare it to (2017). Then select “coastal zone counties.”

<sup>13</sup>[www.coast.noaa.gov/digitalcoast/tools/lca.html](http://www.coast.noaa.gov/digitalcoast/tools/lca.html). Note that the 2016 data will not be available for all states until later Summer 2019. NOAA OCM will be providing summary reports compiling each state’s coastal county data. The reports will be available after all of the 2016 data is available.

to ground-based solar array installations. Rhode Island municipalities are currently struggling with this issue from a land use regulation perspective.

3. *Briefly characterize how the coastal shoreline has changed in the past five years due to development, including potential changes to shoreline structures such as groins, bulkheads and other shoreline stabilization structures, and docks and piers. If available, include quantitative data that may be available from permitting databases or other resources about changes in shoreline structures.*

In the past five years, the CRMC has issued 16 permits for new shoreline protection structures, 138 permits for residential boating facilities and 24 permits for non-residential boating facilities. Outside of permitting activity, the CRMC has been involved in regional efforts to implement and incentivize hybrid and non-structural shoreline protection practices, including a demonstration living shoreline and bluff stabilization project in East Providence, to be constructed in April 2020, and a federally-funded Shoreline Adaptation Inventory and Design project that is currently underway.

**Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if there have been any significant state-level changes (positive or negative) in the development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources, since the last assessment.*

**Significant Changes in Management of Cumulative and Secondary Impacts of Development**

<b>Management Category</b>	<b>Employed by State or Territory (Y or N)</b>	<b>CMP Provides Assistance to Locals that Employ (Y or N)</b>	<b>Significant Changes Since Last Assessment (Y or N)</b>
Statutes, regulations, policies, or case law interpreting these	Y	Y	Y
Guidance documents	Y	Y	N
Management plans (including SAMPs)	Y	N	N

2. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
  - a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

CRMC has recently drafted revisions to the Construction of Shoreline Protection Facilities Section 1.3.1(G) of its regulatory program to include new and updated definitions and standards for hybrid and non-structural shoreline protection. The revised section lays out a process by which applicants must demonstrate that use of non-structural or hybrid shoreline protection are not feasible before proposing structural shoreline protection. It also adds detail to the prohibition of structural shoreline protection. The intended outcome of the revised section is to further encourage non-structural shoreline protection methods and to discourage structural shoreline protection, which can have significant negative impacts to shoreline habitats, sediment transport processes and lateral shoreline access. These regulatory revisions were a partially 309-driven change.

**Enhancement Area Prioritization:**

1. What level of priority is the enhancement area for the coastal management program?

High        \_\_\_\_\_  
 Medium      x  \_\_\_\_\_  
 Low         \_\_\_\_\_

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

This area was ranked as high priority by only one survey respondent of eight. While there is some area of overlap with other areas of the program, it is not a primary area of focus for the agency at this time given the percentage of coastal development in RI that is infill or redevelopment vs. new development.

\*\*\*\*\*

## Special Area Management Planning

**Section 309 Enhancement Objective:** Preparing and implementing special area management plans for important coastal areas. §309(a)(6)

The Coastal Zone Management Act defines a special area management plan (SAMP) as “a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for

timely implementation in specific geographic areas within the coastal zone. In addition, SAMPs provide for increased specificity in protecting natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas, including those areas likely to be affected by land subsidence, sea level rise, or fluctuating water levels of the Great Lakes, and improved predictability in governmental decision making.”

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states and territories.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *In the table below, identify geographic areas in the coastal zone subject to use conflicts that may be able to be addressed through a SAMP. This can include areas that are already covered by a SAMP but where new issues or conflicts have emerged that are not addressed through the current SAMP.*

Geographic Area	Opportunities for New or Updated Special Area Management Plans Major conflicts/issues
Narragansett Bay	Establishing submerged cable corridors for offshore wind energy transmission, implementing marine spatial planning to minimize user conflicts

2. *If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends of SAMPs since the last assessment.*

The CRMC adopted the Shoreline Change SAMP in June of 2018. Please see the Coastal Hazards Assessment section for additional information.

**Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if there have been any significant state- or territory-level management changes (positive or negative) that could help prepare and implement SAMPs in the coastal zone.*

**Significant Changes in Special Area Management Planning**

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
SAMP policies, or case law interpreting these	Y	N	Y
SAMP plans	Y	N	Y

- For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:

Please see the Coastal Hazards Assessment section for information regarding the Shoreline Change SAMP. Work has begun on the Narragansett Bay SAMP, a marine spatial planning document for Narragansett Bay that will establish suitable corridors for submerged cable locations with the intent of minimizing user conflicts and adverse impacts.

**Enhancement Area Prioritization:**

- What level of priority is the enhancement area for the coastal management program?

High        x    
 Medium    \_\_\_\_\_  
 Low        \_\_\_\_\_

- Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

While this enhancement area was not ranked highly by stakeholder survey respondents, the CRMC has designated this a high priority area because of its interest in pursuing the Narragansett Bay SAMP, which will address multiple enhancement areas.

\*\*\*\*\*

**PHASE II (IN-DEPTH) ASSESSMENT**

**In-Depth Resource Characterization:**

*Purpose: To determine key problems and opportunities regarding the preparation and implementation of special area management plans for important coastal areas.*

- What are the one to three most significant geographic areas facing existing or emerging challenges that would benefit from a new or revised special area management plan (SAMP) or better implementation of an existing SAMP? For example, are there areas where existing

*management approaches are not working and could be improved by better coordination across multiple levels of government? What challenges are these areas facing? Challenges can be a need for enhanced natural resource protection; use conflicts; coordinating regulatory processes or review; additional data or information needs; education and outreach regarding SAMP policies; or other (please specify). When selecting significant challenges, also consider how climate change may exacerbate each challenge.*

	<b>Geographic Scope</b> (within an existing SAMP area (specify SAMP) or within new geographic area (describe new area))	<b>Challenges</b>
Geographic Area 1	Narragansett Bay	Siting of submerged cables for power transmission from offshore wind energy projects and managing other user conflicts within Narragansett Bay.

- Briefly explain why these are currently the most significant challenges that may require developing a new SAMP, or revising or improving implementation of an existing SAMP. Cite stakeholder input and/or existing reports or studies to support this assessment.*

Currently the U.S. Navy has requested permission for more intensive use of the federal in-bay testing area adjacent to the Navy War College and several offshore wind farm companies are proposing to lay cables down along the entire length of Narragansett Bay to the Brayton Point Power Station in Massachusetts. Beyond minimizing conflict between new and/or expanding Bay (e.g. offshore wind industry and the Navy) uses and more traditional activities such as fishing and aquaculture, a SAMP is also an opportunity to update current CRMC Bay policies. CRMC is undertaking the development of the Narragansett Bay Special Area Management Plan (Bay SAMP) to improve the management of Narragansett Bay. Specifically, the overall goal of this effort is to develop enforceable policies, focusing on priority issues to manage and minimize conflict between the commercial, military and recreational use of Narragansett Bay.

- Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.*

<b>Emerging Issue</b>	<b>Information Needed</b>
Optimal locations for submerged transmission cables in Narragansett Bay from offshore wind sources	Further characterization of benthic habitats and other physical features of the Bay, information on potential user conflicts

**In-Depth Management Characterization:**

*Purpose: To determine the effectiveness of management efforts to address identified problems related to the special area management planning enhancement objective.*

- For each additional SAMP management category below that was not already discussed as part of the Phase I assessment, indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) have occurred since the last assessment.*

**Significant Changes Related to Special Area Management Planning**

<b>Management Category</b>	<b>Employed by State or Territory (Y or N)</b>	<b>CMP Provides Assistance to Locals that Employ (Y or N)</b>	<b>Significant Changes Since Last Assessment (Y or N)</b>
SAMP research, assessment, monitoring	Y	N	Y
SAMP GIS mapping/database	Y	N	Y
SAMP technical assistance, education, and outreach	Y	N	Y
Other (please specify)			

2. *For management categories with significant changes since the last assessment, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information.*

Please see the Coastal Hazards section of this document for information on the Shoreline Change SAMP and related activities.

3. *Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state’s or territory’s special area management planning efforts since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state’s or territory’s management efforts?*

**Identification of Priorities:**

1. Considering changes with coastal resource protection or coastal use conflicts within defined geographic areas, special area management planning activities since the last assessment, and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve their ability to prepare and implement special area management plans to effectively manage important coastal areas. *(Approximately 1-3 sentences per management priority.)*

*Management Priority 1: Develop Narragansett Bay SAMP.*

*Description: Goal of Narragansett Bay SAMP would be to establish preferential submerged cable routes / configurations to inform permit / federal consistency review.*

2. *Identify and briefly explain priority needs and information gaps the CMP has to help it address the management priorities identified above. The needs and gaps identified here do not need to be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.*

<b>Priority Needs</b>	<b>Need? (Y or N)</b>	<b>Brief Explanation of Need/Gap</b>
Research	Y	Characterization of benthic habitats and other physical features of Narragansett Bay

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Mapping/GIS	Y	Mapping of preferred submerged cable corridors, areas of potential user conflicts
Data and information management	Y	Spatial analysis of existing, new or expanding Bay uses
Training/Capacity building		
Decision-support tools		
Communication and outreach	Y	Engagement of stakeholder groups potentially impacted by new or expanding Bay uses
Other (specify)		

**Enhancement Area Strategy Development:**

1. Will the CMP develop one or more strategies for this enhancement area?

Yes \_\_\_\_\_  
 No   X  

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

While this area is of high priority given the significant number of offshore wind energy projects on the horizon that will result in transmission cables traversing state waters, much of the work required to map preferable cable routes is currently underway. The majority of near-term actions related to this area will be implementation activities.

## Ocean and Great Lakes Resources

**Section 309 Enhancement Objective:** Planning for the use of ocean [and Great Lakes] resources. §309(a)(7)

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states and territories.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *Understanding the ocean and Great Lakes economy can help improve management of the resources it depends on. Using Economics: National Ocean Watch (ENOW),<sup>14</sup> indicate the status of the ocean and Great Lakes economy as of 2015 (the most recent data) in the tables below. Include graphs and figures, as appropriate, to help illustrate the information. Note ENOW data are not available for the territories. The territories can provide alternative data, if available, or a general narrative, to capture the value of their ocean economy.*

**Status of Ocean and Great Lakes Economy for Coastal Counties (2016)**

	All Ocean Sectors	Living Resources	Marine Construction	Ship & Boat Building	Marine Transportation	Offshore Mineral Extraction	Tourism & Recreation
Employment (# of Jobs)	45,496	682.4	136.5	4595.1	2456.8	182.0	37,488.7
Establishments (# of Establishments)	2,389	102.7	26.2	40.6	52.6	14.3	2,152.5
Wages	\$1.3B	\$35.1M	\$10.4M	\$265.2M	\$179.4M	\$9.1M	\$800.8M
GDP	\$2.8B	\$128.8M	\$22.4M	\$588M	\$302.4M	\$39.2M	\$1.716B

<sup>14</sup>[www.coast.noaa.gov/digitalcoast/tools/enow.html](http://www.coast.noaa.gov/digitalcoast/tools/enow.html). If you select any coastal county for your state, you are directed to various data displays for that county. In the upper left of the screen, click the "State" box, to the left of the county box so that the state name will be highlighted. Now the data will reflect statewide data for all of the state's coastal counties. Make sure "2015" is selected for the year (top right corner). You can then click through the sector types by selecting the icons along the top and the type of economic data (employment, wages, GDP, etc), by clicking through the icons on the left.

### Change in Ocean and Great Lakes Economy for Coastal Counties (2005-2015)<sup>15</sup>

	All Ocean Sectors	Living Resources	Marine Construction	Ship & Boat Building	Marine Transportation	Offshore Mineral Extraction	Tourism & Recreation
Employment (# of Jobs)	4293	-73.8	-67.8	1032.6	-445.3	-63.5	3951.
Establishments (# of Establishments)	113	-1.0	-14.5	-13.6	2.6	-1.4	145.
Wages	\$326,479,000	\$6,203,101	\$2,285,353	\$74,437,212	\$45,707,060	\$2,611,832	\$195,560,92
GDP	\$689,605,000	-\$698,960	-\$23,828,690	\$336,648,650	-\$25,394,385	\$21,964,865	\$380,913,52

2. *Understanding existing uses within ocean and Great Lakes waters can help reduce use conflicts and minimize threats when planning for ocean and Great Lakes resources. Using Ocean Reports<sup>16</sup>, indicate the number of uses within ocean or Great Lakes waters off of your state. For energy uses (including pipelines and cables, see the “Energy and Government Facility Siting” template following). Add additional lines, as needed, to include additional uses that are important to highlight for your state. Note: The Ocean Reports tool does not include data for the Great Lakes states. Great Lakes states should fill in the table as best they can using other data sources.*

### Uses within Ocean or Great Lakes Waters

Type of Use	Number of Sites
Federal sand and gravel leases (Completed)	0
Federal sand and gravel leases (Active)	0
Federal sand and gravel leases (Expired)	0
Federal sand and gravel leases (Proposed)	0
Beach Nourishment Projects	5 (from 2014 to present)
Ocean Disposal Sites	1
Principle Ports (Number and Total Tonnage)	1 (Providence total tonnage: 8,064,097)
Coastal Maintained Channels	33 (within 1nm)
Designated Anchorage Areas	21
Danger Zones and Restricted Areas	2 hazard anchorages, 4 restricted areas, 2 MARSEC-enforced ports
Other (please specify)	

3. *In the table below, characterize how the threats to and use conflicts over ocean and Great Lakes resources in the state’s or territory’s coastal zone have changed since the last assessment.*

<sup>15</sup> The trend data is available at the bottom of the page for each sector and type of economic data. Mouse over the data points for 2005 and 2015 to obtain the actual values and determine the change by subtracting 2005 data from 2015.

<sup>16</sup> [www.coast.noaa.gov/digitalcoast/tools/ort.html](http://www.coast.noaa.gov/digitalcoast/tools/ort.html). Go to “Quick Reports” and select the “state waters” option for your state or territory. Some larger states may have the “Quick Reports” for their state waters broken into several different reports. Use the icons on the left hand side to select different categories: general information, energy and minerals, natural resources and conservation, oceanographic and biophysical, transportation and infrastructure, and economics and commerce. Then scroll through each category to find the data to complete the table.

### Significant Changes to Ocean and Great Lakes Resources and Uses

Resource/Use	Change in the Threat to the Resource or Use Conflict Since Last Assessment (↑, ↓, -, unkwn)
Benthic habitat (including coral reefs)	--
Living marine resources (fish, shellfish, marine mammals, birds, etc.)	↑
Sand/gravel	--
Cultural/historic	--
Other (please specify)	
Transportation/navigation	--
Offshore development <sup>17</sup>	↑
Energy production	↑
Fishing (commercial and recreational)	↑
Recreation/tourism	--
Sand/gravel extraction	--
Dredge disposal	--
Aquaculture	--
Other (please specify)	

4. For the ocean and Great Lakes resources and uses in the table above that had an increase in threat to the resource or increased use conflict in the state's or territory's coastal zone since the last assessment, characterize the major contributors to that increase. Place an "X" in the column if the use or phenomenon is a major contributor to the increase.

### Major Contributors to an Increase in Threat or Use Conflict to Ocean and Great Lakes Resources

	Land-based development	Offshore development	Polluted runoff	Invasive species	Fishing (Comm and Rec)	Aquaculture	Recreation	Marine Transportation	Dredging	Sand/Mineral Extraction	Ocean Acidification	Other (Specify)
Energy Production		X			X							
Living Marine Resources / Fishing		X										

5. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends of ocean and Great Lakes resources or threats to those resources since the last assessment to augment the national data sets.

The Bureau of Ocean Energy Management's map of Atlantic Outer Continental Shelf renewable energy areas shows the 2 active renewable energy leases and 5 OCS lease blocks for offshore wind development that will have impacts on the RI commercial fishing industry,

<sup>17</sup> Offshore development includes underwater cables and pipelines, although any infrastructure specifically associated with the energy industry should be captured under the "energy production" category.

as well as living marine resources. There are currently 8 proposed projects that represent over 7000 MW of energy generation.

**Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if any significant state- or territory-level changes (positive or negative) in the management of ocean and Great Lakes resources have occurred since the last assessment?*

**Significant Changes to Management of Ocean and Great Lakes Resources**

<b>Management Category</b>	<b>Employed by State or Territory (Y or N)</b>	<b>CMP Provides Assistance to Locals that Employ (Y or N)</b>	<b>Significant Changes Since Last Assessment (Y or N)</b>
Statutes, regulations, policies, or case law interpreting these	Y	N	Y
Regional comprehensive ocean/Great Lakes management plans	N	N	Y
State comprehensive ocean/Great Lakes management plans	Y	N	Y
Single-sector management plans	Y	N	N

2. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
  - a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

In February 2020, NOAA approved amendments to the policies and standards (formerly Chapter 11) of the Ocean Special Area Management Plan ([Ocean SAMP](#)). These amendments were proposed to improve the predictability of state permitting and federal consistency review processes for offshore renewable energy projects. The amendments apply to renewable energy and offshore development activities located within state waters or federal waters within the CRMC geographic location description (GLD) boundaries that are subject to federal consistency review pursuant to the Coastal Zone Management Act(CZMA) 16 U.S.C. §§ 1451-1464 and 15 CFR Part 930.

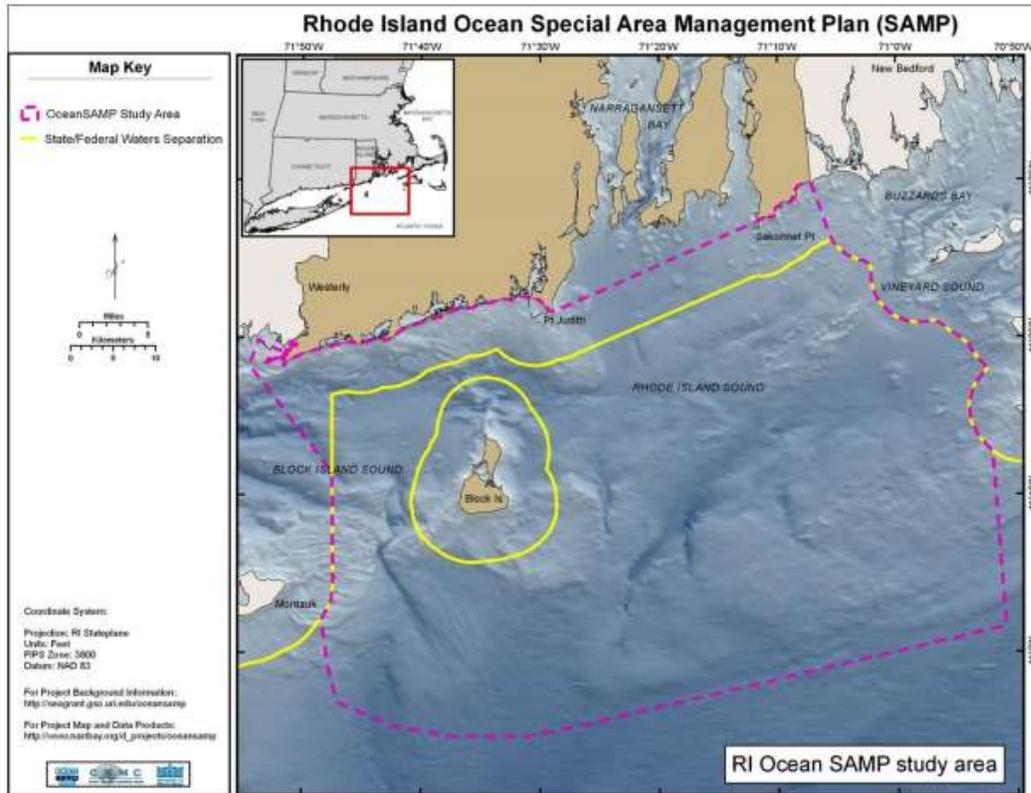
In December 2018, NOAA approved a new Geographic Location Description (GLD) within federal waters south of Martha’s Vineyard that expands the area within which the CRMC may review authorizations made by the Department of Interior’s Bureau of Ocean and Energy Management (BOEM) for offshore wind energy facilities and associated cables. The new GLD encompasses all

current BOEM lease blocks in the vicinity and thus ensures CRMC federal consistency review for projects associated with those lease areas.

NE Ocean Plan --Certified by the Obama Administration’s National Ocean Council in December 2016, the Northeast Ocean Plan summarizes the ocean planning process and is a guide for agency decisions and practices that advance progress toward regional goals for the management of our public ocean resources.

3. *Indicate if your state or territory has a comprehensive ocean or Great Lakes management plan.*

Comprehensive Ocean/Great Lakes Management Plan	State Plan	Regional Plan
Completed plan (Y/N) (If yes, specify year completed)	Y (2010)	Y (2016)
Under development (Y/N)	--	
Web address (if available)	<a href="https://seagrant.gso.uri.edu/oceansamp/index.html">https://seagrant.gso.uri.edu/oceansamp/index.html</a>	<a href="https://neoceanplanning.org/">https://neoceanplanning.org/</a>
Area covered by plan	See Figure 1. below	



**Figure 1. Rhode Island Ocean Special Area Management Plan (Ocean SAMP) study area. The study area encompasses Rhode Island and Block Island Sounds and is approximately 1,500 sq mi.**

**Enhancement Area Prioritization:**

1. *What level of priority is the enhancement area for the coastal management program?*

High \_\_\_\_\_  
 Medium   x    
 Low \_\_\_\_\_

2. *Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.*

Ocean Resources was ranked as being of high importance by only one survey respondent. There have been significant recent updates to this enhancement area with the newly-designated GLD and adoption of revisions to the Ocean Special Area Management Plan. Near-term activities are likely to be related to implementation of these recent changes.

\*\*\*\*\*

## Energy and Government Facility Siting

**Section 309 Enhancement Objective:** Adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance. §309(a)(8)<sup>18</sup>

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states and territories.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *In the table below, characterize the status and trends of different types of energy facilities and activities in the state's or territory's coastal zone based on best-available data. If available, identify the approximate number of facilities by type. For ocean-facing states and territories (not Great Lakes states), Ocean Reports<sup>19</sup> includes existing data for many of these energy facilities and activities.*

---

<sup>18</sup> CZMA § 309(a)(8) is derived from program approval requirements in CZMA § 306(d)(8), which states:

“The management program provides for adequate consideration of the national interest involved in planning for, and managing the coastal zone, including the siting of facilities such as energy facilities which are of greater than local significance. In the case of energy facilities, the Secretary shall find that the State has given consideration to any applicable national or interstate energy plan or program.”

NOAA regulations at 15 C.F.R. § 923.52 further describe what states need to do regarding national interest and consideration of interests that are greater than local interests.

<sup>19</sup> [www.coast.noaa.gov/digitalcoast/tools/ort.html](http://www.coast.noaa.gov/digitalcoast/tools/ort.html). Select “Quick Reports” and then enter your state. Select the Quick Reports for “coastal waters” off of your state. Depending on the size of the state, there may be more than one “coastal waters”. If so, you will need to add the data from all reports to complete the table. Click on the wind turbine icon on the left (“Energy and Minerals”) for information on energy facilities. While outside your coastal zone, you may also want to consider facilities/activities in “Federal Waters” that may have effects on your coastal zone.

## Status and Trends in Energy Facilities and Activities in the Coastal Zone

Type of Energy Facility/Activity	Exists in Coastal Zone (# or Y/N)	Change in Existing Facilities/Activities Since Last Assessment (↑, ↓, --, unkwn)	Proposed in Coastal Zone (# or Y/N)	Change in Proposed Facilities/Activities Since Last Assessment (↑, ↓, --, unkwn)
Pipelines	Y	↑	N	N
Electrical grid (transmission cables)	Y	↑	Y	↑
Ports	Y	--	N	N
Liquid natural gas (LNG)	Y	N	N	N
Other (please specify)				
Oil and gas	N	--	N	N
Coal	N	--	N	N
Nuclear	N	--	N	N
Wind	7	↑	Y	Y
Wave	N	--	N	N
Tidal	N	--	N	N
Current (ocean, lake, river)	N	--	N	N
Hydropower	Y	N	Y	↑
Ocean thermal energy conversion	N	--	N	N
Solar	Y	↑	N	N
Biomass	N	--	N	N
Other (please specify)				

- If available, briefly list and summarize the results of any additional state- or territory-specific information, data, or reports on the status and trends for energy facilities and activities of greater than local significance in the coastal zone since the last assessment.

The Bureau of Ocean Energy Management's map of Atlantic Outer Continental Shelf renewable energy areas shows the 2 active renewable energy leases and 5 OCS lease blocks for offshore wind development within the newly-established GLD. There are currently 8 proposed projects that represent over 7000 MW of energy generation.

### Management Characterization:

- Indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) that could facilitate or impede energy and government facility siting and activities have occurred since the last assessment.

### Significant Changes in Energy and Government Facility Management

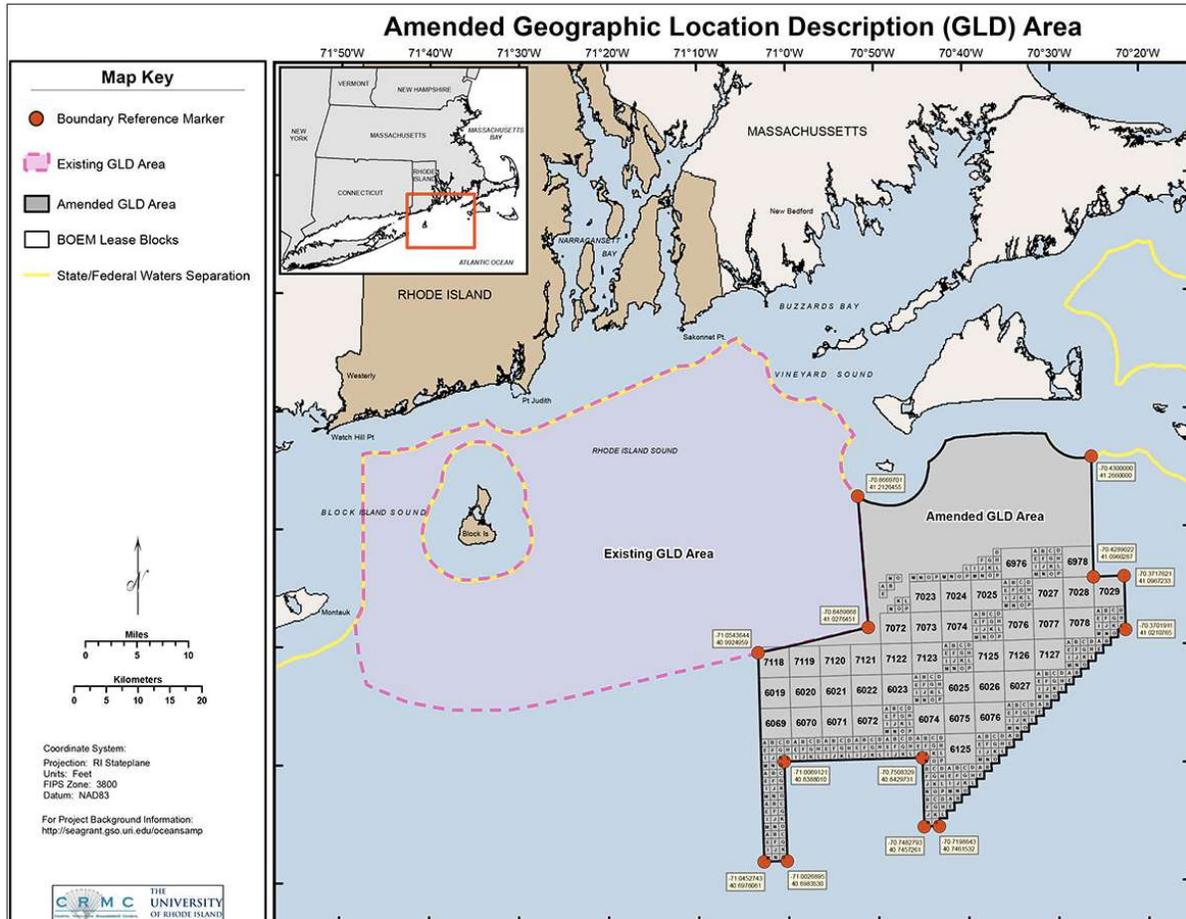
Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	N	Y
State comprehensive siting plans or procedures	Y	N	Y

2. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
- a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

In February 2020, NOAA approved amendments to the policies and standards (formerly Chapter 11) of the Ocean Special Area Management Plan ([Ocean SAMP](#)). These amendments were proposed to improve the predictability of state permitting and federal consistency review processes for offshore renewable energy projects. The amendments apply to renewable energy and offshore development activities located within state waters or federal waters within the CRMC geographic location description (GLD) boundaries that are subject to federal consistency review pursuant to the Coastal Zone Management Act(CZMA) 16 U.S.C. §§ 1451-1464 and 15 CFR Part 930.

In December 2018, NOAA approved a new Geographic Location Description (GLD) within federal waters south of Martha’s Vineyard that expands the area within which the CRMC may review authorizations made by the Department of Interior’s Bureau of Ocean and Energy Management (BOEM) for offshore wind energy facilities and associated cables. The new GLD encompasses all current BOEM lease blocks in the vicinity and thus ensures CRMC federal consistency review for projects associated with those lease areas.

#### **New GLD approved by NOAA in December, 2018**



**Enhancement Area Prioritization:**

1. What level of priority is the enhancement area for the coastal management program?

High \_\_\_\_\_  
 Medium   X    
 Low \_\_\_\_\_

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Offshore wind energy development is a sector that is poised to experience tremendous growth over the next five years, and is of economic importance to the state, however the CPMC's role for projects located in federal waters is limited to Federal Consistency review. For an in-depth assessment of related issues (submerged cable siting) see the Special Area Management Plan section of this document.

\*\*\*\*\*

## Aquaculture

**Section 309 Enhancement Objective:** Adoption of procedures and policies to evaluate and facilitate the siting of public and private aquaculture facilities in the coastal zone, which will enable states to formulate, administer, and implement strategic plans for marine aquaculture. §309(a)(9)

**PHASE I (HIGH-LEVEL) ASSESSMENT:** *(Must be completed by all states and territories.)*

*Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.*

**Resource Characterization:**

1. *In the table below, characterize the existing status and trends of aquaculture facilities in the state’s coastal zone based on the best-available data. Your state Sea Grant Program may have information to help with this assessment.*<sup>20</sup>

**Status and Trends of Aquaculture Facilities and Activities**

Type of Facility/Activity	Number of Facilities <sup>21</sup>	Approximate Economic Value	Change Since Last Assessment (↑, ↓, -, unkwn)
Shellfish farms	76	\$7M	↑
Hatcheries	3	\$1M	↑
Kelp farms	4	\$1M	↑

2. *If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends or potential impacts from aquaculture activities in the coastal zone since the last assessment.*

The CRMC’s 2019 Aquaculture Report is in development. The 2018 report can be found here: <http://www.crmc.ri.gov/aquaculture/aquareport18.pdf> and includes these highlights:

- The number of farms in Rhode Island increased from 52 farms in 2013 to 76 farms in 2018
- The total acreage under cultivation increased from 176.55 in 2013 to 319.3 in 2018
- Oysters remained the number one aquaculture product with 8,515,950 sold for consumption
- The farm gate value of aquaculture products increased from \$4,385,156 in 2013 to \$6,090,000 in 2018
- Oyster seed sales from RI aquaculturists was \$243,250
- The number of aquaculture farm workers increased from 127 in 2013 to 200 in 2018

<sup>20</sup> While focused on statewide aquaculture data rather than just within the coastal zone, the *Census of Aquaculture* ([www.aqcensus.usda.gov/Publications/Census\\_of\\_Aquaculture/](http://www.aqcensus.usda.gov/Publications/Census_of_Aquaculture/)) may help in developing your aquaculture assessment. The census is conducted every 10 years and the last report was released in 2013. The report provides a variety of state-specific aquaculture data to understand current status and recent trends. .

<sup>21</sup> Be as specific as possible. For example, if you have specific information of the number of each type of facility or activity, note that. If you only have approximate figures, note “more than” or “approximately” before the number. If information is unknown, note that and use the narrative section below to provide a brief qualitative description based on the best information available.

**Management Characterization:**

1. *Indicate if the approach is employed by the state or territory and if there have been any state- or territory-level changes (positive or negative) that could facilitate or impede the siting of public or private aquaculture facilities in the coastal zone.*

**Significant Changes in Aquaculture Management**

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Aquaculture comprehensive siting plans or procedures	Y	N	Y
Other aquaculture statutes, regulations, policies, or case law interpreting these	Y	N	Y

2. *For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:*
  - a. *Describe the significance of the changes;*
  - b. *Specify if they were 309 or other CZM-driven changes; and*
  - c. *Characterize the outcomes or likely future outcomes of the changes.*

The CRMC aquaculture strategy continues to develop. Cooperation with the RI Department of Environmental Management on aquaculture siting and mapping continues to evolve positively. The CRMC aquaculture regulations have been modified to more precisely address emerging issues particularly concerning seed importation and Vibrio issues. CRMC has worked with the USDA to secure funding and manage a sentinel program looking at oyster disease levels in each biosecurity zone. These were not 309-driven changes.

**Enhancement Area Prioritization:**

1. What level of priority is the enhancement area for the coastal management program?

**High**      \_\_\_\_\_  
**Medium**    \_\_\_\_\_  
**Low**        \_\_\_X\_\_\_

2. *Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.*
- 3.

Aquaculture in RI is growing at a consistent pace. We do not anticipate any major changes to that pace. This area was ranked as being of high importance by only one survey respondent. While it is an important area of focus for the agency, near-term activities are expected to be

focused on continued implementation of the existing program. This area was not ranked as high priority by survey respondents.

\*\*\*\*\*

# Coastal Hazards Strategy

## I. Issue Area(s)

The proposed strategy or implementation activities will support the following high-priority enhancement areas (*check all that apply*):

- |  |   |
|--|---|
| <input type="checkbox"/> Aquaculture                           | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy and Government Facility Siting | <input type="checkbox"/> Wetlands                         |
| X <input checked="" type="checkbox"/> Coastal Hazards          | <input type="checkbox"/> Marine Debris                    |
| <input type="checkbox"/> Ocean/Great Lakes Resources           | <input type="checkbox"/> Public Access                    |
| <input type="checkbox"/> Special Area Management Planning      |   |

## II. Strategy Description

A. The proposed strategy will lead to, or implement, the following types of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- x New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised special area management plans (SAMP) or plans for areas of particular concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- x New or revised guidelines, procedures, and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government, and other agencies that will result in meaningful improvements in coastal resource management.

### B. Strategy Goals:

1. This Strategy will complete the development of guidance on the design and implementation of non-structural and hybrid shoreline protection practices to support new policies (see RICRMP Redbook § 1.3.1.G Shoreline Protection). The guidance will be formally adopted by CRMC as a required step in the coastal hazards analysis process of application reviews. The guidance will help implement the new policies [see RICRMP Redbook § 1.3.1.G Shoreline Protection] that restrict and prevented the use of hard erosion control structures, such as sea walls and bulkheads, that may impact natural shoreline features, and which facilitate the use of green infrastructure and other shoreline adaptation strategies where developed under the previous 309 Assessment and strategy.

It should be noted here that this work was identified as part and parcel (and complimentary) to work accomplished under the previous Strategy, namely the

development of program regulations for Shoreline Protection, identified above. However due to senior staff retirements, 309-funded staff leaving the agency for work elsewhere, the rule-making process lasting longer than anticipated due to the review of the state regulatory oversight agency, and, highly significant, an intense emphasis on the agency's needs to address offshore renewable energy projects vis-à-vis federal consistency and BOEM project requirements, it wasn't completed (while begun, it needs more work for completion). Therefore it will be addressed under this Strategy.

2. Work with municipalities to update local zoning ordinances to minimize development in areas at risk from coastal hazards.

Describe the proposed strategy and how the strategy will lead to and/or implement the program changes selected above. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)

CRMC's 2015-2020 Section 309 Hazards strategy included revising CRMC's rules regarding shoreline stabilization structures to facilitate the use of green infrastructure and other soft shoreline stabilization structures, where possible. The 2015-2020 strategy also included plans to develop a companion guidance document on the design and implementation of non-structural and hybrid shoreline protection practices and to provide technical and financial assistance to municipalities to incorporate new guidance, tools and information related to coastal hazards into local decision-making. During much of 2020, when the 2021-2025 A&S was being revised, the 2015-2020 coastal hazard strategy was finalized and adopted as revisions to the regulatory program dealing with shoreline protection (650-RICR-20-00-01 Section 1.3.1(G)). However the rule-making process lasted longer than anticipated due to the review of the state regulatory oversight agency. Additionally initial work to develop draft guidance on the design and implementation of non-structural and hybrid shoreline had just begun but due to senior staff retirements, 309-funded staff leaving the agency for work elsewhere, the rule-making process lasting longer than anticipated due to the review of the state regulatory oversight agency, and, highly significant, an intense emphasis on the agency's needs to address offshore renewable energy projects vis-à-vis federal consistency and BOEM project requirements it wasn't completed. For the same reasons nor did any outreach or technical assistance to municipalities get started under the 2015-2020 strategy.

The 2021-2025 hazards strategy will pick up where the 2015-2020 strategy left off by completing the design and implementation guidance and working with municipalities to update local zoning ordinances to minimize development in areas at risk from coastal hazards. The guidance will build upon work conducted through the regional coastal resilience grant project in partnership with The Nature Conservancy and the Northeast Regional Ocean Council, and will reference guidance such as the *Living Shorelines in New England: State of the Practice* document produced under the Coastal Resilience Grant award. It will also build upon municipal outreach and project design conducted under the NFWF-funded Shoreline Adaptation, Inventory and Design project.

The CRMC will also develop outreach materials in association with the Guidance, such as fact sheets and FAQs. Staff will work with municipalities interested in utilizing the agency's Coastal

Hazard Application process and the STORMTOOLS suite of mapping tools for changes to local zoning ordinances to minimize development in high risk areas. Such technical assistance could include sample language from what the CRMC developed for its hazards' requirements, as each municipal suite of land use ordinances are unique to each jurisdiction. Meetings and workshops will be held on assisting municipalities in making revisions to their regulations, using the guidance to provide technical assistance while also building capacity at the local level.

### **III. Needs and Gaps Addressed**

Identify what priority needs and gaps the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority needs and gaps. This discussion should reference the key findings of the assessment and explain how the strategy addresses those findings.

The strategy addresses the need for specific information that practitioners and municipalities can utilize to increase shoreline resilience.

### **IV. Benefits to Coastal Management**

Discuss the anticipated effect of the strategy, including the scope and value of the strategy, in advancing improvements in the CMP and coastal management, in general.

The anticipated effect of the strategy will be to enhance shoreline resiliency statewide through the implementation of a diverse suite of adaptation strategies described within the CMP and Shoreline Change SAMP but primarily through the use of nature-based techniques. The recent revisions to the shoreline protection regulations of the RICRMP seek to balance private property issues with public environmental benefits that do a better job of managing sea level rise and hazards matters. The subsequent Guidance and technical assistance to be offered under this Strategy will benefit coastal management by introducing a consistent approach to the land/sea interface vis-à-vis hazards management and local land use ordinances, with staff being the conduit to assist municipal zoning officers in building capacity at the local level.

### **V. Likelihood of Success**

Discuss the likelihood of attaining the strategy goal and program change (if not part of the strategy goal) during the five-year assessment cycle or at a later date. Address the nature and degree of support for pursuing the strategy and the proposed program change, as well as the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

Municipalities vary in their capacity and ability to carry out projects or implement changes that increase shoreline and community resiliency. A coordinated statewide approach is needed, and the CRMC has the opportunity to build on the important assessment and modeling work already done as part of the Beach SAMP and other efforts to provide guidance and assistance to practitioners and municipalities seeking to make changes at the local level. CRMC envisions accomplishing this by building capacity at the municipal level with the Guidance being developed under this Strategy. Because the coastal hazards

analysis process will be a required step in application requests, the guidance will in turn help municipal officials integrate processes that address the benefits and impacts from hard erosion control structures, such as sea walls and bulkheads, that may impact natural shoreline features, and which facilitate the use of green infrastructure and other shoreline adaptation strategies of the State.

It should be noted here that the development of Guidance and outreach efforts were envisioned under the last Strategy. For reasons explained previously (senior staff retirements, 309-funded staff leaving the agency for work elsewhere, the rule-making process lasting longer than anticipated due to the review of the state regulatory oversight agency, and, highly significant, an intense emphasis on the agency's needs to address offshore renewable energy projects vis-à-vis federal consistency and BOEM project requirements) these efforts will be accomplished under this Strategy. New policy staff being brought on board will take up the reins of this effort, making success more likely due to the expected longevity of their tenure. Said staff who may be new to the 309 Enhancement program and its use and implementation with the agency could also be seen as adjusting to a steep learning curve, thereby causing delays in meeting expected outcome deliveries. This is not likely but is an issue.

#### **VI. Strategy Work Plan**

Using the template below, provide a general work plan that includes the major steps that will lead toward or achieve a program change or implement a previously achieved program change. For example, even if the final adoption of the program change is outside of the CMP's control, what steps will be included in the work plan so the CMP ensures the program change is considered, reviewed, and hopefully adopted by the outside entity? Who are the other stakeholders or elected officials that need to be engaged, and how and when during the strategy development process? What is the decision-making or voting process that is involved in the adoption of the program change, and how will the CMP interact with this process to ensure that the proposed program change is considered? If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. The plan should identify a schedule for completing the strategy and include major projected milestones (key products, deliverables, activities, and decisions) and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual milestones are a useful guide to ensure the strategy remains on track, OCM recognizes that they may change somewhat over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. Further detailing and adjustment of annual activities, milestones, and budgets will be determined through the annual cooperative agreement negotiation process.

**Strategy Goal:**

**Total Years: 5**

**Total Budget: \$275,000**

**Year(s): 1-2**

**Description of activities:** The CRMC has adopted new shoreline protection regulations (see 650-RICR-20-00-01 Section 1.3.1(G))

- A) Complete the development of agency companion guidance addressing nonstructural and hybrid shoreline protection;
- B) As necessary, address issues that are raised by the implementation of these new shoreline protection by proposing revisions.

**Major Milestone(s):** Development & adoption of agency guidance document; RICRMP revisions as necessary

**Budget: \$110,000**

**Year(s):** 3-5

**Description of activities:** Development of outreach and technical assistance for coastal resilience matters that is geared towards municipal officials and municipal land use ordinances. Work with municipalities on the incorporation of the CRMC's Coastal Hazard Application process, suggested adaptation strategies, and STORMTOOLS suite of mapping tools to help build capacity at the municipal level.

**Major Milestone(s)**

**Year 3 & 4:** Development of outreach and technical assistance materials focused on municipal use of agency resiliency tools. Meet with municipalities as to their participation in addressing coastal resiliency matters into land use programs.

**Year 5:** Municipal workshops and technical assistance on coastal resilience tools

**Budget: \$165,000**

## VII. Fiscal and Technical Needs

- A. Fiscal Needs:** If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the CMP has made, if any, to secure additional state funds from the legislature and/or from other sources to support this strategy.

The CRMC will engage state-funded permit staff in the development of guidance materials. The CRMC has previously used competitive federal resilience funding to inventory, design and implement shoreline adaptation projects. There may be opportunity to apply for additional funding to conduct follow-up evaluation of those efforts to inform municipal guidance development. The CRMC is currently part of a team led by URI GSO proposing a shoreline modeling and monitoring effort for the RI south shore and Narragansett Bay for funding through the National Fish and Wildlife Foundation's Coastal Resilience Fund program.

- B. Technical Needs:** If the state does not possess the technical knowledge, skills, or equipment to carry out all or part of the proposed strategy, identify these needs. Provide a brief description of what efforts the CMP has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).

The CRMC will continue to work under its current contract with the University of Rhode Island's Environmental Data Center and Coastal Resources Center to maintain and improve its STORMTOOLS suite of mapping tools. Shoreline condition monitoring equipment such as ADCPs and boat-mounted LiDAR will be provided by Dr. John King at URI GSO.

**VIII. Projects of Special Merit (Optional)**

If desired, briefly state what projects of special merit the CMP may wish to pursue to augment this strategy. (Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above.) The information in this section will not be used to evaluate or rank projects of special merit and is simply meant to give CMPs the option to provide additional information if they choose. Project descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not provide detailed project descriptions that would be needed for the funding competition.

## Public Access Strategy

**IX. Issue Area(s)**

The proposed strategy or implementation activities will support the following high-priority enhancement areas (*check all that apply*):

- |  |   |
|--|---|
| <input type="checkbox"/> Aquaculture                           | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy and Government Facility Siting | <input type="checkbox"/> Wetlands                         |
| <input type="checkbox"/> Coastal Hazards                       | <input type="checkbox"/> Marine Debris                    |
| <input type="checkbox"/> Ocean/Great Lakes Resources           | <input checked="" type="checkbox"/> Public Access         |
| <input type="checkbox"/> Special Area Management Planning      |   |

**X. Strategy Description**

**C.** The proposed strategy will lead to, or implement, the following types of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised special area management plans (SAMP) or plans for areas of particular concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures, and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government, and other agencies that will result in meaningful improvements in coastal resource management.

**D. Strategy Goal:** Improve public shoreline access by assessing and enhancing public parking at CRMC designated rights of way, and developing parameters and guidance for shoreline

signage. Enhancing public access through improvements in local planning and zoning that help to prioritize opportunities for parking enhancements and clearer guidance on public access signage. It is anticipated that these components would be first steps towards a formally adopted, comprehensive shoreline public access plan.

- E. Strategy tasks will include collection of information regarding parking availability at all CRMC-designated ROWs, and the addition of this information to the existing ROW database developed by Save The Bay (accessible on CRMC website [here](#)). Based on this parking analysis, candidate sites may be identified for future parking improvements in coordination with municipalities. Guidance on ROW parking will be developed and formally adopted by CRMC and shared with municipalities via a public access work group, with the goal of creating local zoning ordinances or comprehensive plan elements that incorporate CRMC recommendations. Guidance will also be developed and formally adopted by CRMC that addresses shoreline signage on private property, in order to minimize confusion or adverse impacts to appropriate public shoreline access. Parameters within this guidance should include the nature of signage (e.g. temporary vs. permanent), dimensions, materials, and wording. Shoreline signage guidance will also be shared with municipalities via a public access work group, with the goal of creating local zoning ordinances or comprehensive plan elements that incorporate CRMC recommendations. Collectively, these tasks and the establishment of a state-municipal shoreline public access work group will be viewed as first steps towards the development of a comprehensive statewide public access plan.

#### **XI. Needs and Gaps Addressed**

This strategy addresses the priority needs and gaps related to mapping / GIS and data and information management. Information related to parking availability at CRMC designated ROWs will be collected and organized to identify and prioritize opportunities for improvement and enhancement. It also addresses the priority need for communication and outreach to municipalities. Guidance for residential shoreline signage will be developed by CRMC staff in consultation with coastal municipalities. CRMC will conduct outreach to disseminate the completed guidance to coastal municipalities via a public access work group, and provide necessary technical assistance for incorporation of the guidance into local zoning ordinances or comprehensive plans.

#### **XII. Benefits to Coastal Management**

This strategy is considered foundational to the development of a comprehensive shoreline public access plan. Currently, there are components of the RICRMP and multiple SAMPs that address shoreline public access; however the agency lacks a comprehensive document that deals solely with this issue from a policy perspective. This strategy represents tangible steps that can be taken in the short term to address some of the most pressing issues related to this topic, while prompting important discussion, outreach and collaboration with local governments.

#### **XIII. Likelihood of Success**

This strategy was developed with a five-year timeline in mind, and represents a reasonable scope for moving forward within the public access enhancement area. This strategy can be implemented by existing staff who have detailed knowledge of public access issues and

established connections with municipalities on this topic. This topic has steadily been gaining public attention. Legislation related to lateral shoreline access will be brought before the RI House this session, nonprofit groups such as Surfrider Foundation have approached CRMC with requests to discuss this topic, and active groups on social media have recently been posting about the topic and citing CRMC publications, programs and projects. There are many state, local and nonprofit partner organizations that can be engaged as CRMC pursues development of a more comprehensive public access strategy and creates a shoreline public access work group.

#### **XIV. Strategy Work Plan**

Using the template below, provide a general work plan that includes the major steps that will lead toward or achieve a program change or implement a previously achieved program change. For example, even if the final adoption of the program change is outside of the CMP's control, what steps will be included in the work plan so the CMP ensures the program change is considered, reviewed, and hopefully adopted by the outside entity? Who are the other stakeholders or elected officials that need to be engaged, and how and when during the strategy development process? What is the decision-making or voting process that is involved in the adoption of the program change, and how will the CMP interact with this process to ensure that the proposed program change is considered? If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. The plan should identify a schedule for completing the strategy and include major projected milestones (key products, deliverables, activities, and decisions) and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual milestones are a useful guide to ensure the strategy remains on track, OCM recognizes that they may change somewhat over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. Further detailing and adjustment of annual activities, milestones, and budgets will be determined through the annual cooperative agreement negotiation process.

**Strategy Goal:** Improve public shoreline access by assessing and enhancing public parking at CRMC designated rights of way, and formally adopting parameters and guidance for ROW parking and shoreline signage. Engage municipalities in a public access work group to facilitate adoption of CRMC public access guidance into local zoning ordinances and comprehensive plans. Use strategy tasks and work group as foundation for development of a statewide shoreline public access plan.

**Total Years:** 5

**Total Budget:**

**Year(s):** 1-3

**Description of activities:** Assessment of public parking at CRMC ROWs and development of draft parameters and guidance for signage pertaining to public access on private coastal property. Establishment of shoreline public access work group.

**Major Milestone(s):** Data collection for all 226 designated CRMC ROWs; Completion of draft parameters and guidance for signage; outreach to 21 coastal communities

and invitations to participate in shoreline public access work group; kickoff meeting of public access work group.

**Budget: \$90,000**

**Year(s): 4-5**

**Description of activities:** Identification and prioritization of candidate sites for parking enhancements at CRMC ROWs; review and finalization of shoreline signage guidance by shoreline public access work group; technical assistance to municipalities to incorporate guidance into local zoning ordinances or comprehensive plans.

**Major Milestone(s):** List of at least ten candidate sites with parking improvement opportunities; outreach to respective municipalities to discuss potential projects; at least 6 meetings of shoreline access public work group; final versions of ROW parking and shoreline signage guidance disseminated electronically to all 21 coastal municipalities; 1 technical assistance workshop for municipalities wishing to incorporate CRMC guidance into local zoning ordinances or comprehensive plans.

**Budget: \$60,000**

**XV. Fiscal and Technical Needs**

**A. Fiscal Needs:** 309 Funding is anticipated to be sufficient to carry out the tasks as described.

**B. Technical Needs:** The CRMC would engage the URI Environmental Data Center through a cooperative agreement or intern assignment for any GIS / mapping assistance needed to update the CRMC ROW database. Facilitation services needed for public engagement and collaborative learning could be acquired through the Narragansett Bay National Estuarine Research Reserve's Coastal Training Program Coordinator or other partner agency.

**XVI. Projects of Special Merit (Optional)**

The CRMC may wish to pursue PSM funds to support a statewide workshop to provide an opportunity for stakeholder engagement as we develop parameters and guidance for local ordinances around this issue. Having an event that includes a professional facilitator and note-takers will ensure that all input is received and recorded, and any resulting deliverables are well-informed.

## ***5-Year Budget Summary by Strategy***

At the end of the strategy section, please include the following budget table summarizing your anticipated Section 309 expenses by strategy for each year. Generally, CMPs should only develop strategies for activities that the state intends to fund and work on given their anticipated level of Section 309 funding. However, in some circumstances, CMPs may wish to use the assessment and strategy development process as a broader strategic planning effort for the CMP. In that case, the CMP may elect to include additional strategies that exceed the state’s anticipated Section 309 funding over the five-year period. If the CMP chooses this approach, it should still clearly indicate which strategies it anticipates supporting with Section 309 funding and which strategies it anticipates supporting through other funding sources.

<b>Strategy Title</b>	<b>Anticipated Funding Source (309 or Other)</b>	<b>Year 1 Funding</b>	<b>Year 2 Funding</b>	<b>Year 3 Funding</b>	<b>Year 4 Funding</b>	<b>Year 5 Funding</b>	<b>Total Funding</b>
Coastal Hazards	309	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$275,000
Public Access	309	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$150,000
<b>Total Funding</b>		\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$425,000

## Summary of Stakeholder and Public Comment

In November of 2019 an [online survey](#) was distributed via email to 30 key stakeholders. Stakeholder groups represented included coastal municipalities, marine trades groups, commercial fisheries, conservation organizations, watershed organizations and builders' organizations. Eight responses were received. Respondents were asked to categorize each Assessment and Strategy areas as High, Medium or Low importance, and were then given the opportunity to comment on problems and opportunities related to those areas designated as high priority.

Of the nine Assessment and Strategy areas, Coastal Hazards was ranked as "high priority" by all eight respondents. The area with the next highest number of high priority designations was Public Access, followed by Wetlands and Marine Debris.

Selected Survey Comments:

*Concern about coastal development becoming the communities' problem and investment in terms of redevelopment. Spend \$ on buy outs not redevelopment.*

*The state should advocate at the national level to begin funding greater amounts of money towards protection of currently at-risk, developed property along the coast instead of redevelopment.*

*CRMC has done a great job at sea level rise mapping and threats to coastal wetlands. Planning for new coastal wetlands instead of armoring the coast should be a policy.*

*Create momentum for funding policies and state legislation to implement change. Eliminate the silos that have current policies borne by the local community with funding and often disparate with other state and federal regulations*

*Coastal Hazard Areas: Any decision regarding retreat or rebuild must be based on scientific evidence, risk- benefit analysis, and economic indicators. Are they economic consequences of doing nothing and allowing redevelopment higher than the economics of prohibiting redevelopment?*

*Marine Debris - There are opportunities to work with the institutions of higher education in the State to come up with alternate products to replace plastics. Also continue to work with the State Legislature to ban plastics on beaches, etc.*

*The greatest problem is ensuring the protection of public access for Rhode Island to allow the public to continue to enjoy the recreational benefits of the coastal area.*

*The greatest opportunity we see is increased resources to support programs that educate and provide solutions for waterfront businesses that are currently or will be in a coastal hazard area.*

The Draft Section 309 Program Assessment & Strategy document was also posted on the CRMC website in August 2019. The CRMC received a number of comments on the draft document, mainly addressing the Public Access enhancement area. For this reason, the CRMC elected to raise the initial priority of that enhancement area from Medium to High, and to complete a Phase II Assessment and Strategy for Public Access. All stakeholder survey responses are included in Appendix A of this document.

## **Appendix A**

### **Stakeholder Survey Responses**