Town of South Kingstown, RI



Harbor Management Plan



November 1992 March 1994 (amended)

September 2010 (Update)

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1. INTRODUCTION

Rhode Island General Laws, Title 46, Section 4 (Harbors and Harborlines), enables the coastal municipalities with certain powers regarding the regulation of public waters within their jurisdiction so as to ensure orderly development and management of harbor areas. These powers include: management of vessel operations within harbors; management of anchorages and moorings; and, regulation of activities (i.e. water skiing, skin diving). Specifically, cities and towns have authority to enact, through ordinance and an appointed harbormaster, rules and regulations to control activities on or in the waters under their jurisdiction (see Appendix A for management responsibilities).

It is important to note that RIGL, Title 46, Section 4 does not empower municipalities to consider environmental impacts of activities, prevention of conflicts with other water dependent uses, or to decide resource allocation questions.

The purpose of the South Kingstown Harbor Management Plan is:

- 1) to identify issues associated with the tidal waters of the Town;
- 2) to identify goals, recommendations and policies for the public and private use of the tidal waters and their watersheds;
- 3) to assess the natural resources of the tidal waters; and,
- 4) to develop a program for implementing the recommendations for protecting and utilizing the coastal resources of the Town.

About 150 million people in the United States presently live within less than fifty miles from the coastline. This represents approximately 53% of the total population. These figures show a notable increase from the 2000 census data that indicated a population of 137.5 million (48.9% of the total population). As a coastal community South Kingstown will continue to experience growth. According to the 2000 U. S. Census, the population of South Kingstown was 27,921 which is a 13.4 percent increase over the 1990 population and a 36.7 percent increase from the 1980 census figure of 20,414. The latter figures represent the largest population increase among all Rhode Island cities and towns during the past two decades. In addition to a continued year-round population growth, the Town experiences a significant increase in population during the summer months because of an active tourist industry.

The Harbor Management Plan serves as a planning guide that enables the Town to manage and to utilize its many coastal resources. Such issues as water quality, moorings, commercial and residential development, commercial and recreational fishing, public access, boating safety, natural hazard mitigation/storm preparedness and enforcement are addressed in the Plan.

The goal of the Plan is to provide a realistic balance between the diverse human impacts to coastal areas and the protection of the irreplaceable resources. A management strategy should reflect a commitment to protecting coastal areas through proactive planning. This will ensure sustained

economic and recreational opportunities for the residents and provide a healthy habitat for the many indigenous plants and animals.

A. Background

The Town Council appointed a fifteen member Harbor Management Advisory Committee (HMAC) in December of 1989 for the purpose of drafting a Harbor Management Plan for South Kingstown. The HMAC members included representatives from the following Town boards: the Conservation Commission, the Waterfront Advisory Committee, and the Planning Board. Other appointed members included marina owners, commercial fishermen, mooring association members, boat owners, coastal residents, and inland residents.

The South Kingstown Harbor Management Plan received R.I. Coastal Resources Management Council (RICRMC) approval following a public hearing held on February 9, 1993. The related Boats and Waterways Ordinance had previously been approved by the South Kingstown Town Council at a public hearing held on March 9, 1992. The Ordinance has been periodically revised on an as needed basis.

The Plan was revised in 1994 in response to RICRMC recommendations specifically pertaining to the Boats and Waterways Ordinance. The revised South Kingstown Harbor Management Plan received RICRMC approval following a public hearing held on April 23, 1996.

B. Harbor Management Issues

The following identified major issues are addressed in Section 6 of the Harbor Management Plan. Each issue includes a section that outlines the background information, goals, policies, and recommended actions.

- On-site Wastewater Treatment Systems (OWTSs) are a source of contamination to the tidal waters of South Kingstown. Many systems are outdated (i.e. cesspools) or improperly functioning. If not addressed, the problem will become more pronounced as development increases and existing OWTSs age.
- The use of recreational and commercial boats can contribute to water quality degradation. Contamination can occur from boat septage discharges, substances associated with boat operation and repair, and discarded refuse.
- Significant contamination of both ground and surface water bodies can be caused by erosion, sedimentation, and storm water runoff. Such contaminants as heavy metals, nitrates, hydrocarbons, excess nutrients, sediment, and pesticides transported by wind and water can pose serious threats to humans and to the environment.
- Both underground and above ground storage tanks pose a threat to the quality of both ground and surface water.

- Moorings need to be registered and regulated to ensure the safety of the people using the waters and to protect the health of the ecosystems found within and around these waters.
- As a coastal community, South Kingstown will continue to experience commercial and residential development pressures. Uncontrolled and/or poorly planned development will stress and degrade the Town's resources.
- Point sources of pollution pose a serious water quality threat to tidal waters.
- Shell and finfish species that live and spawn in the tidal waters are threatened by degrading water quality. Such factors as septic systems, surface runoff, and boats contribute to the contamination of the waters.
- Increasing the number of public facilities available in the waterfront areas will further enhance the opportunities for the public to enjoy those resources available.
- The public right to access the shoreline and marine waters needs to continue to be addressed in a comprehensive manner. Sites need to be identified, developed and/or maintained in order to afford the public their legal rights regarding access to the shore.
- Because of the diversity of uses and the increase in the number of people on the water, the speed at which boats travel becomes a significant safety concern.
- The varied and multiple uses of the salt ponds and coastal waters (i.e. boating, swimming, aquaculture, fishing, scientific research) lends itself to potential conflict concerning availability of the existing finite space. Coordinated comprehensive policies and regulations are needed at the State and local level to ensure the optimum use of these resources while reducing and minimizing conflict.
- There is a serious safety issue that stems from the diversity of water activities as well as the increase in the numbers of people using the area. Such activities as swimming, windsurfing, fishing, aquaculture, water skiing, jet skiing, sailing, and speedboat racing can pose safety problems when undertaken in an unregulated and random manner.
- Enforcement is paramount in the successful implementation of a program. Rules and regulations concerning safety, marine sewage disposal, moorings, and other harbor management issues must be enforced in a consistent and effective manner. Adequate financing is required to achieve the necessary level of enforcement.
- The maintenance of a healthy dune system is critical to perpetuating the barrier beaches and the ecosystems that exist behind the dunes.
- Some channels need to be periodically dredged to ensure that safe, navigable waterways are maintained. When dredging is proposed, for channels or anchorage areas, the effects on the ecology of both the area(s) to be dredged and the dredge disposal area(s) must be assessed.

C. Boats and Waterways Ordinance

Policies and programs proposed for implementation under the Harbor Management Plan must have a regulatory mechanism for enforcement. Many of these policies and programs, where applicable, are regulated under provisions of the South Kingstown Boats and Waterways Ordinance (Chapter 4 of the Code of Ordinances of the Town of South Kingstown). The South Kingstown Boats and Waterways Ordinance, as amended, has been formally adopted and incorporated as part of the Harbor Management Plan (see Appendix G).

2. HISTORICAL BACKGROUND

Prior to the 1600s, the coastal landscape of South County consisted of fields, forests, salt marshes, pristine sandy beaches, and salt ponds. The Narragansett Indians, seasonal visitors to the area, relied on the rich estuarine environment for their livelihood. According to Verrazano, the first European to sail past Point Judith, the Native Americans lived in small villages and practiced subsistence agriculture, hunting and fishing. The salt ponds were a major source of food during the summer months, and to some extent in the winter. In the spring, they moved their camps from the interior woodlands down to the shore, convenient for fishing and harvesting shellfish. In addition, the Native Americans cultivated crops on the coastal plains, using fertilizers of dried menhaden and the abundant seaweeds. The Narrow River area has had human settlement for at least the past 3,000 years. Hunting and gathering, fishing, commercial farming, and shipbuilding have all occurred in the area.

For some years after Colonial settlement in Rhode Island began in 1636, the prime interest in the South County region was fur trade with the Native Americans. With the establishment of permanent colonies during the later part of the 17th century, the coastal pond region experienced significant changes in land use patterns. This population was devoted primarily to farming. The islands and necks of land so common along the shore provided excellent opportunities for pasturing cattle, horses and sheep, with minimum expense and difficulty in fencing and great ease in protecting the animals from predators. During the 1700's, the lands surrounding the Pettaquamscutt (Narrow) River were developed by the 'Narragansett Planters' into large farms, unusual in size for the region. This agrarian culture more resembled Southern plantations than that of the New England yeomen operated farms. These predominantly dairy farms were considered among the finest in New England, and the products were shipped to nearby cities from Boston Neck.

Meanwhile further inland, small water-driven mills in Peace Dale and Wakefield formed the nucleus for industrial villages. As these settlements continued to expand, the environmental impact became increasingly more noticeable as direct industrial discharges were made into the Saugatucket River and nearby waterways.

In the 1800's the coastal ponds and waters supported such an abundant and rich fish population that the Port of Galilee rose to prominence as a fishing port, and shipbuilding became an important industry along the Narrow River. Initially, fin fish were harvested by farmers as an income supplement during dormant periods in the agricultural season. In 1663, the British Crown had

granted the settlers access to the waters, a right which was later reaffirmed in the State Constitution in 1842.

The years following the Civil War until World War I saw an increase in the number of people coming from the oppressive heat, odors, noise, and congestion of the major urban centers to enjoy the quiet, beauty and recreational opportunities of the area. The great hotels of Narragansett, and a growing number of summer cottages along the South Shore, housed an important, albeit temporary, addition to the area's population. Most of these summer residents came by rail to West Kingston, and then after 1876 by the Narragansett Pier Railroad to Narragansett from New York and Boston. In addition, the area was made accessible by a fleet of excursion steamers bringing local visitors from Providence, Newport, and other towns throughout the area. In the 1900's, the Narrow River was primarily used as a summer resort area. The era of the 19th century big hotel shore resort gave way to single cottages as a result of, among other factors, the mobility allowed by the automobile and improved roads, the hotel fires in the early 1900's, the 1929 Wall Street Crash, and the destruction caused by the Hurricane of 1938.

By the end of the 19th century, traditional shore fishing was replaced by the more efficient techniques of commercial fishing. The advent of power boats demanded deep water landings and protected waters. Two major improvements to the area were constructed between 1891 and 1934: the Harbor of Refuge (offshore breakwaters) and the construction of a permanent channel at the entrance to Point Judith Pond. By 1910 Point Judith Pond was connected to the Harbor of Refuge by a large navigable channel. The channel was also an attempt to decrease siltation believed responsible for oyster population decreases.

There has been a major decline in the availability of fish in the ponds as a result of many factors. But the construction and maintenance of the breachways brought major, often undesired, changes to the fisheries in the ponds. During the 1860's and the 1870's, according to <u>The Providence</u> <u>Journal</u>, over 6,000 barrels of alewives and 1,000 barrels of perch, eels, smelt, flatfish, clams and oysters were taken from Point Judith Pond. During the 1880's, Potter Pond produced over 300 barrels (60,000 lbs) of white perch. Point Judith Pond produced well over 1,000 barrels (200,000 lbs), while Green Hill Pond yielded similar quantities. Striped bass also were commercially available in 1850 in the ponds. Oysters were so plentiful that fishermen could rake as many as 20 bushels in a morning. The brackish water that favored the above species has given way, because of the breachways, to such salt tolerant species as flounder, quahogs, and bay scallops.

In addition to building State piers at Jerusalem and Galilee and a 35-acre anchorage basin inside the Pond, the State of Rhode Island dredged a channel north to Wakefield at the head of the Pond in 1934. These improvements, together with the formation of the Point Judith Fishermen's Cooperative in 1947, advances in fishing technology, and the construction of the Escape Road in 1954, led to an expansion in the fishing industry. From 1895 to 1935, landings increased from 300 tons to 3,000 tons, while the years from 1945 to 1950 saw an increase from 17,000 tons to 50,000 tons.

The years since the end of World War II have brought dramatic changes to the entire region. The physical reality of this growth is a dramatic increase in the number of residential houses. In the Point Judith/Potter Pond area, the number of homes increased from about 100 in 1940 to 3,300 in 1980.

The rapid residential, commercial, and industrial growth in the coastal watersheds has brought a host of stresses to the area, including competing uses and environmental degradation. Residential septic systems and lawn maintenance practices have contributed many contaminants, including nitrates and bacteria, to the coastal waters. In recent years, closure of shellfish beds because of increased fecal coliform counts and accelerated eutrophication of the waters has occurred. Dredging has altered greatly the biological, chemical, and physical nature of the ponds. Development also has increased the erosion and sedimentation to the waters. In addition, commercial uses, underground storage tanks, boats with marine sewage disposal systems, and non-point source pollution pose contamination threats to the sensitive estuarine waters. We can look to the past to see a pattern of a vital fishing community and area of thriving recreational opportunities. The challenge is to strike a balance between the many competing uses for the coastal waters and the re-establishment, protection and maintenance of a healthy ecosystem.

3. PHYSICAL CHARACTERISTICS

A. Boundaries

South Kingstown is bounded on the west by the Town of Charlestown, which claims the most westerly portion of Green Hill Pond. South Kingstown shares a significant portion of its coastal resources with the Town of Narragansett, as the eastern town boundary splits both Point Judith Pond and the Narrow River. For the purposes of the Harbor Management Plan, the inland boundary of the study area extends to Route 1, the approximate northern limit of the coastal watershed.

The coastal region of South Kingstown includes five coastal ponds and an estuarine river. The water bodies are, from east to west: the Pettaquamscutt (Narrow) River; Point Judith Pond; Potter Pond; Card Pond; Trustom Pond; and Green Hill Pond (Figure 1).

B. Water Body Size and Depth

Following is basic information regarding the physical characteristics of the tidal and inter-tidal water bodies located entirely or partially within South Kingstown.

	Acreage	Average Depth (ft.)
Green Hill Pond	431	2.5
Potter Pond	329	2.0
Point Judith Pond	1530	6.0
Trustom Pond	160	1.5
Card Pond	43	1.5
Narrow River	83	4.0

It is estimated that the water levels in Green Hill, Point Judith, and Potter ponds have fallen 2.7 feet since the beginning of the century (Olsen and Lee, 1984). The change has occurred as a response at least partially to creation of the Charlestown Breachway. The Narrows (where the



Pettaquamscutt River meets the ocean) is 150 wide at mean high water (MHW), with depths to eight feet. Point Judith Pond is a tidal water body, reaching more than four miles with a width of approximately one mile in some places. The Narrow River, also a tidal inlet and estuary, extends for approximately six and one half miles, often not exceeding a width of 1/8 mile.

C. Navigation Channels and Breachways

1. Navigation Channels

The only federally maintained channel in South Kingstown is in Point Judith Pond (Figure 2). The maintained area consists of: a) a 15-feet deep (MLW), 200 feet wide (at its widest point) entry channel; b) a 15- feet deep and 150 feet wide (at its widest point) west channel; and, c) a 15-feet deep, 200 feet wide (at its widest point) east channel. The pond entrance is a 770 acres Harbor of Refuge, which includes three breakwaters. After the State Pier on the west side, the channel continues at a depth of 6 feet and a width of 150 feet.

North of High Point the dredged channel continues to the north with a depth of 6 feet and a width of 100 feet and ends at the western tip of Plato Island. From this point north and to the east of Crown Point to the Narrows, the channel has not been dredged. The channel then continues at a depth of 5-6 feet and a width of 100 feet, where it ends at Tallow Hill Point on the eastern side of the pond in Wakefield in a mooring and yacht basin of 400 feet by six feet in depth.

Thirty years of sediment transport into Point Judith Harbor resulted in significant shoaling in the entrance channel, East and West Branch channels and the 10 foot anchorage of the Point Judith Harbor of Refuge Federal Navigation Project (FNP) as determined by a bathymetric survey undertaken by the Army Corps of Engineers in 2001.

Following the required feasibility study and design phases the Army Corps awarded a maintenance dredging contract to dredge approximately 90,000 cubic yards of material from the main channel, as well as, various shoaled areas. The dredging project was completed within the required environmental regulatory window in March 2007. The total area dredged comprised approximately twenty five acres. Dredge materials were deposited within two near off shore areas for the purpose of providing beach replenishment along the Matunuck area shoreline.

2. Breachways

Breachways, or the narrow natural or Man made channels of water which connect a pond to the ocean, have been impacting the salt ponds since their natural formation thousands of years ago. As a result of storm surges, winds, and sand deposition, natural openings to the sea may occur, only later to be filled by sand. When a breachway is open, it allows for the flushing of the ponds with ocean water, with all the attendant changes in salinity, temperature, depth, and circulation patterns.

These changes have a direct effect on the plant and animal life that can live in the pond. Because a salt pond is the result of the dynamic forces of wind and water, these continual physical and ecological changes are a natural process.



Until the beginning of the twentieth century, the ponds had only seasonal breachways, which were man-made channels dug to allow for the passage of boats. However, construction of a permanent breachway for Point Judith was begun in 1902. The natural breachway between Potter Pond and the ocean was not maintained and eventually filled in. In 1909, a man-made channel was built to connect Potter Pond to Point Judith Pond. There have not been any breachways directly from Green Hill Pond to the ocean since the 1940s (Olsen and Lee, 1984), but a stable channel connects it to Ninigret Pond. The breachway between Point Judith and Potter ponds has been accumulating sediment and is, therefore, affecting the accessibility of the ponds. Trustom Pond and Card Pond do not have any stabilized inlets. Since 1974, these ponds have been opened to the sea, and then allowed to close naturally, in the spring and fall as part of the U.S. Fish and Wildlife Service management program. The controversial results of dredging are discussed in Section 6.H.

There are no federally maintained channels or navigational aids in the Narrow River. The first request for dredging was made in 1871, but no action or formal study took place. Entrance of large vessels into the river is hampered by bridges of less than 10 foot clearance (at mean low water), the presence of boulders and rocks only visible at low tide, and shifting sand bars. The entrance to the Narrow River, located in Narragansett, is becoming increasingly difficult to navigate as it fills with sediment. The Narrows is 150 feet wide at mean high water with a range of from under one foot to eight feet. There are rocks and boulders near the tidal entrance that are only visible at low tide. The stretch of river between Middlebridge and Bridgetown Bridge is 60 feet at its widest point with an average depth of three feet. The bridges have less than 10 feet of clearance at mean low water, a condition that impedes both sailing and large craft vessels. The depths of the Narrow River have never been charted by the National Geodetic Survey.

D. Hydrology

<u>Narrow River</u> - The Narrow River has been described as a combination of a tidal inlet and back bay, an estuary, a fjord-like pond, and a river (Howard-Strobel, et. al, 1987). Because the area is shallow, narrow, and poorly flushed, it is very susceptible to pollutants. Studies have shown that fresh water inputs from groundwater are minimal (Howard-Strobel, 1987). The surface water runoff comes from a large land area, making both the quality and quantity of runoff a significant factor in the health of the system.

<u>Point Judith Pond</u> - The northern end of Point Judith Pond receives water directly from the Saugatucket River. The southern portion of the pond is open to Block Island Sound, which allows for an exchange of about 5 percent of the volume of water daily. The creation of a permanent breachway in Point Judith Pond in the early 1900's resulted in marked changes in the physical, biological, and chemical characteristics of the Pond. As noted in the Rhode Island Special Area Management Plan for the Salt Pond Region, these changes have impacted greatly the habitat quality of the ponds. Changes in salinity caused significant changes in the vegetation and other food sources. The breachway allowed new predators to enter the ponds and subsequently disturbed the previously protected areas needed for spawning grounds. Sedimentation is another direct result of the breachway, as sand is carried by flood tide currents and deposited in shoals (i.e. around Great Island).

Very limited flushing occurs in the northern section of the Point Judith Pond. Because of the mixing of fresh water from the river to the north and the salt water from the ocean to the south, the upper Pond often has a two-layered flow of water. Eutrophication is more likely to occur in the northern (upper) section because of the limited flushing and proximity to concentrated pollutant sources.

Potter Pond

Limited flushing creates a similar problem for potential degradation of water quality in Potter Pond. The interchange between pond and tidal waters is limited to the narrow connection Potter Pond has with Pt. Judith Pond. The location of the connection ensures reasonable flushing in the central and southern sectors of the pond with limited water exchange in the Pond's northern region. Fortunately there are no rivers or streams that drain directly into Potter Pond. As such the potential for a direct pollution source conduit does not exist (as opposed to the Saugatucket River impacts to the upper northern reaches of Pt. Judith Pond).

<u>Trustom and Card Ponds</u> - The fresh water input into these ponds is from both groundwater and surface water runoff. Since 1973, the U.S. Fish & Wildlife Service (USF&WS) has periodically breached Trustom Pond in the fall and spring as a management practice. The temporary breachway is then allowed to close naturally. Card Pond is breached periodically by the Town and in coordination with CRMC and USF&WS.

<u>Green Hill Pond</u> - The construction of a permanent channel in 1962, connecting Green Hill Pond to Ninigret Pond, caused measurable changes in flushing patterns as creation of the channel provided for a tidal water exchange between the pond and Block Island Sound via the Charlestown Breachway. Still, the present tide range in the Pond is only approximately 1.5 inches with an estimated total flushing time of eleven (11) days (Applied Science Associates, December 2007).

E. Surficial Geology

The geology of New England has been shaped by the Wisconsin glacial period that occurred almost 17,000 years ago. One of the most apparent effects of the glacier was a disruption of the drainage patterns, causing formation of extensive marshes and other wetlands. The Rhode Island shoreline is a result of this glacial action and its forces of erosion and deposition. These two forces have helped to create a constantly changing coastline, filled with such dynamic features as marshes, bays, estuaries, barrier beaches, spits, sand dunes, and salt ponds (Kaye, 1960). The combination of wind and wave action causes these features to move and to change continually. In addition, the impacts of human activity can exert powerful, and sometimes undesirable, changes on the natural features.

Many of the soils around the salt ponds are outwash, or sands and gravels stratified and sorted by the waters of melting glaciers. These types of soils are highly permeable and often have high water tables. The soils of the Narrow River area are well-drained outwash soils, often with steep slopes and high water tables. Pockets of wetlands, containing very poorly drained hydric soils, are found around both the Narrow River and the salt ponds.

F. Flood Zones

The current boundaries of the flood zones are defined in the Federal Emergency Management Agency (FEMA) flood insurance rate maps for the Town of South Kingstown, dated January 3, 1986 as revised through October 19, 2010 (see Figure 3).

The landward areas surrounding the salt ponds are designated as A zones (areas of 100 year flooding), while the areas immediately along the beaches and seaward of the ponds are classified as V zones (areas of coastal flooding with high velocity wave action). The central portion of Point Judith Pond is also designated as a V-zone.

Low lying lands in South Kingstown contiguous to Narrow River are within the 100 year A zone. This extends from the South Kingstown - Narragansett town line to the South Kingstown - North Kingstown town line.

FEMA is undertaking a nationwide map modernization program to update all Flood Insurance Rate Maps (FIRMs). The FIRMs for Washington County, RI were completed in March 2010 and became effective October 19, 2010. The coastal special flood hazard areas have been revised on the new flood maps and all the coastal base flood elevations converted to NAVD88. The Town Council adopted the FEMA mandated Flood Plain Management Ordinance (Town Code, C. 21) in August 2010.

The Town has established a High Flood Danger (HFD) Overlay District as defined in Section 601 of the South Kingstown Zoning Ordinance. The purpose of the HFD is to control and/or limit development in areas designated as subject to periodic or seasonal flooding within the immediate shore line zone. Applicants proposing construction within the HFD must obtain a Special Use Permit from the Zoning Board of Review. Application submission requirements include preparation of an Environmental Impact Statement to assess development impacts to existing fragile and irreplaceable natural resources. The application process mandates review of the proposal by the: Planning Board; Waterfront Advisory Committee; and, Conservation Commission prior to Zoning Board of Review action.

4. BIOLOGICAL RESOURCES

A. Wetlands and Wetlands Functions

Because of its glacial geology and coastal location, South Kingstown has many different classes of wetland (see Appendix E). The term wetland usually brings to mind a swamp, a bog, or a marsh. But, in fact, wetlands include a number of different land types: aquatic beds, beaches, flood plains, wet meadows, swamps, bogs, and marshes are examples. The common characteristic of a wetland is that the area be at least periodically saturated or covered with water. Wetlands are defined by soil types (hydric soils), predominance of facultative wetland plants, and presence of distinct hydrology characteristics (Army Corps of Engineers, 1987). In Rhode Island, coastal wetlands are defined as salt marshes and the contiguous fresh or brackish water wetlands; and b) areas of open water within coastal wetlands (Olsen and Seavy, 1983).



Wetlands are protected and regulated by federal, state, and local laws because they provide many valuable functions, including but not limited to the following.

1) Wetlands attenuate pollutants by means of various chemical, physical, and biological processes.

2) Wetlands serve as a mechanism of flood control because they store storm water during and after heavy rain events.

3) The provision of vital habitats for plant and animal life is an important function of wetlands. Many animals live there permanently, but many also use wetlands as places to feed, to breed, or to rest during migration. Many rare and endangered plants and animals depend upon wetlands as primary habitat.

4) Wetlands provide scenic landscapes.

5) Wetland areas provide active and passive recreation opportunities.

6) Wetlands provide groundwater recharge. As the need for potable water increases, the ability *of* wetlands to replenish our groundwater supplies will become more important.

B. Wetland Types

Coastal wetlands comprise approximately 3 percent of the land area in the Town. South Kingstown contains a diversity of coastal wetland classes: approximately 350 acres are coastal wetlands and an additional 2,466 acres are salt ponds and estuarine rivers. As indicated, there are only 280 acres of salt marsh remaining in South Kingstown, and there are relatively few acres of the remaining for certain other wetlands classes (i.e. beaches, riverine, and scrub shrub) (Cowardin, et.al, 1979).

C. Vegetation

The salt ponds and the Narrow River with their associated wetlands include all of the features listed below. The salt ponds and the Narrow River are estuaries, areas where fresh and salt water mix. These areas contain floodplains, mudflats and salt marshes, open water, and adjacent fresh and brackish wetlands. Such varied wetland habitats are valuable to a diversity of wildlife including a number of rare and endangered species.

<u>Barrier Beaches</u> - Barrier beaches are narrow strips of beach running parallel to the mainland and are deposited by wave and wind action. These beaches usually serve as a buffer between the ocean and salt ponds, salt marshes, or some type of coastal wetland. As the sands shift with the dynamic forces of erosion and deposition, the beach faces continually change. Barrier beaches may be sandy or contain cobbles and other sediments. Barrier beaches serve as nesting and feeding spots for shore birds, including the least tern and the endangered piping plover. The Town of South Kingstown has over four miles of undeveloped barrier beaches and over one mile of developed barrier beaches, as classified by the Rhode Island Coastal Resources Management Program. Construction is prohibited on an undeveloped barrier beach, except where the primary purpose of the project is protection, maintenance, restoration or improvement of the feature as a conservation area or natural storm buffer.

There are six (6) areas along the coastal shoreline and the Pettaquamscutt River designated under the federal Coastal Barrier Resources System. A detailed description of those areas can be found in the Town's Multi-Hazard Mitigation Strategy Plan, November 2005 as amended.

<u>Salt Marsh/Mud Flat</u> - A salt marsh is an area which regularly is inundated with salt water during the high tide phase of the diurnal cycle and has the following dominant vegetation: reed grass, salt marsh cord grasses, cattails, sea lavender, black grasses, saltwort. In a salt marsh, the process of sediment being deposited and trapped is offset by the forces of erosion. Salt marshes and their contiguous wetlands have large numbers of shellfish and act as a nursery and spawning ground for several species of commercial and recreational shellfish (Appendix B). The combination of brackish, shallow water, circulation patterns, water temperatures, and protection from certain predators make estuaries and salt ponds one of the most highly productive ecosystems. A brackish marsh is a transitional area that may include the following plant species: reed grass, beach rose, and salt meadow grasses.

<u>Salt Pond/Estuaries</u> - These actually are embayments, areas that are shallow and receive inputs of both salt and fresh water. The salinity of a water body depends on the amount of salt water entering (either from breachways or ocean washing over the dunes) and the amount of fresh water entering from the upland (groundwater, streams, or surface runoff). It is this dynamic combination of brackish, shallow water, barrier beaches, and salt marshes that creates such a unique environment.

<u>Submerged Aquatic Vegetation</u> - Data based upon periodic mapping of coastal eelgrass habitats in the State, performed by CRMC, indicate the presence of eelgrass beds within Point Judith Pond and Green Hill Pond. There are also eelgrass beds located in Narrow River within Town of Narragansett waters. There are two eelgrass bed lines in Green Hill Pond. One follows the shoreline in the northwest sector of Flat Meadow Cove, terminating in the area of Jacob Island. The other follows the shoreline from Tuck Point to Horseshoe Point. In Point Judith Pond the mapped eelgrass bed line begins at a point approximately halfway between Gooseberry Island and High Point, thence continues northerly for about 3400 linear feet.

<u>Associated Habitats</u> - Sand dunes are the vegetated lands that slope upward from the beach. Dunes are important because the vegetation (usually beach grass, <u>Ammophila breviligulata</u>) traps sand that protects the inland wetlands and prevents the erosion of the barrier beach. As the grasses trap the sand, the dune grows. The grasses also stabilize the area as their underground root systems, or rhizomes, weave a lateral network under the dunes. Areas of severe erosion may occur when the beach grass, a species sensitive to foot traffic, is trampled and dies.

Other species that may be found on the dune crest and back dune are: beach rose, beach pea, seaside goldenrod and Dusty Miller. Toward the back dune, beach grass may be replaced by switch grass, beach heath, and bayberry. The vegetative cover attracts such small mammals as the eastern cottontail and the meadow vole.

As the back dune becomes more protected, the number of vegetative species increases. An understory of dense shrubs forms to provide cover and nesting areas for a variety of wildlife. These areas serve as an important food source for both native and migrating birds.

Fresh water wetlands may buffer the salt and brackish area from the upland areas. A discussion of freshwater wetlands resources in South Kingstown is found in the Natural and Cultural Resources Element of the South Kingstown Comprehensive Plan, 1992, as updated March 2004.

<u>D. Fish</u>

Salt marshes and their contiguous wetlands provide vital habitat for shellfish and serve as a nursery and spawning ground for several species of commercial and recreational fin and shellfish (Appendix B). The combination of brackish, shallow water, circulation patterns, water temperatures, and protection from certain predators make estuaries and salt ponds one of the most highly productive ecosystems. Figure 4 shows the fishing areas in the Town tidal waters. However, some areas have been closed to fishing for water quality reasons (see Section 5. F).

1) <u>Finfish</u> - The salt ponds serve as a spawning ground and nursery for a large population of winter flounder (Figure 5). Flounder migrate into the ponds in mid-October and spawn from late December into April. It has been observed that flounder spawn in the shallow parts of the ponds.

Many other fin fish populations have steadily declined to the point that the State (DEM with advice from R.I. Marine Fisheries Council) presently manages harvesting through a quota system. This system establishes seasonal and/or annual quotas for "restricted fin fish" species that include: scup, summer flounder, tautog, striped bass, black sea bass and winter flounder. All other fin fish species are in the "non-restricted" category. Bluefish are restricted but the quota allocated by the State is higher than harvesting totals from the fishing industry. Over the past few years (2002 - 2007) quota levels have remained fairly constant for most restricted fin fish species. Quotas have been lowered for scup and summer founder due to over fishing.

2) <u>Shellfish</u> - For over twenty years Point Judith, Green Hill, and Potter Ponds have been designated as Shellfish Management Areas by the Rhode Island Marine Fisheries Council. A Shellfish Management Area is an area of special concern in which the State can regulate shellfish closure areas, size limits, seasonal and daily catch limits, methods of harvest and capture, and transplant activities. Currently, all ponds have reduced catch limits. (Note: Refer to Section 5.F for information on shellfish closures).

The past few recent years have seen a dramatic increase in the number of aquaculture leases and the related value of shellfish produced from Rhode Island aquaculture operations. In the six years between 2004 to 2009 the total shellfish value more than tripled from \$572,994 to \$1,785,135. This total value is remarkable when considering that the shellfish value at the start of the decade was only \$300,000. CRMC figures for 2009 indicate that the aquaculture value per acre is \$13,272. Further, the combined farm gate value of aquaculture products for consumption and restoration was \$2,721,378.

At present there is one aquaculture operation lease located in Potter Pond. In addition, portions of two separate leases in Pt. Judith Pond are located within Town of South Kingstown waters. The

rapid increase in commercial aquaculture permit requests has caused some concerns regarding impacts to other uses, most notable being winter flounder spawning areas. In 2008 State agencies agreed to a proposal from the CRMC Working Group on Aquaculture Regulations to limit the total aquaculture operations to no greater than five percent (5%) of State waters. At present the total aquaculture activity in Potter Pond and Pt. Judith Pond (South Kingstown waters) is below that five percent threshold.

3) <u>Point Judith Pond</u> - There are three commercially harvested species of shellfish in the Pond: the soft shell clam (<u>Mya arenaria</u>), the bay scallop (<u>Argopectin irradiens</u>), and the quahog (<u>Mercenaria mercenaria</u>). A large oyster fishery once existed in Point Judith Pond in the late 1800's (over 10,000 bushels annually). The bay scallop harvest was in excess of 35,000 bushels in 1978, but in 1985 it experienced a total failure. Continuing efforts to reseed Point Judith Pond with scallops have not yet been successful (possible factors may include low oxygen events caused by increasing eutrophication of the pond or predation - scallops placed in cages have done fairly well). Studies indicate that there is very heavy fishing pressure on the quahog population.

While no specific commercial quahog landing data is available on a pond by pond basis the overall statistics for the State are fairly representative of the demise of quahog landings in South Kingstown. DEM data in the <u>Management Plan for the Shellfish Fishery Sector</u>, December 2009 indicate that landings have steadily decreased from a 1985 high of about 12,000 metric tons to 1,425 metric tons in 2007, a decline of over eighty five percent.

4) <u>Potter Pond</u> - One commercial aquaculture lease, approximately five acres in size, is presently operational in the pond.

5) <u>Green Hill Pond</u> - Shellfishing has been prohibited in Green Hill Pond since 1995 per action taken by DEM as a result of the high contaminant levels within that water body.

6) <u>Narrow River</u> - Shellfish resources remain plentiful in the river. Prior to the water quality degradation and closure by RI DEM, Narrow River supported a substantial recreational and seasonal commercial shellfishery.

E. Rare and Endangered Species

South Kingstown is perhaps the most important town in Rhode Island for rare species and natural communities. Approximately twenty percent (20%) of the State's most significant sites occur in the Town. The Rhode Island Department of Environmental Management's Natural Heritage Program has mapped the areas of critical habitat for these species of ecological significance. Several of these areas fall within the watersheds of the salt ponds and the Narrow River. A map of these Natural Heritage Areas is available for review in the Planning Department.

Notable among South Kingstown sites are: the Factory Pond wetland complex that provides habitat for a number of rare and endangered species, including a unique twelve acre dwarf Atlantic White Cedar bog; Trustom and Cards ponds that, along with Moonstone Beach and associated wetlands supports important rare bird and plant species; and, the Succotash salt marsh and Matunuck Beach system that supports at least four documented rare birds and six rare plants within the salt marsh and marsh/dune interface.





F. Wildlife and Conservation Areas

1) <u>National Wildlife Refuges</u> - Trustom Pond NWR and the John H. Chafee NWR, under the jurisdiction of the U.S. Fish and Wildlife Service (USF&WS), are the two National Wildlife Refuges located in South Kingstown.

a. <u>Trustom Pond National Wildlife Refuge</u> - This 787 acre refuge was established in 1974 for the primary purpose of providing habitat for migratory birds. It includes 1.5 miles of barrier beach (Moonstone Beach) and two salt ponds (Card, 43 acres; and Trustom, 160 acres). The habitats on the refuge include: fields, marshes, mudflats, freshwater pond and wooded swamps, brackish pond, shrub land, barrier beach and dune systems, and croplands... Portions of beach at Moonstone have been fenced and closed to the public in an effort to protect the nesting sites of the endangered Piping Plover. The project has produced an increase in the number of Piping Plovers nesting and fledging.

b. John H. Chafee National Wildlife Refuge - In 1988, legislation was passed to establish the 600-acre Pettaquamscutt Cove (Narrow River) National Wildlife Refuge (Figure 6). In 1999 Congress renamed the refuge in honor and recognition of Sen. John H. Chafee. Since creation of this NWR the U.S. Fish and Wildlife Service has been in the process of acquiring land within the NWR boundary that includes the Cove, associated salt marshes and tidal flats, and a buffer of forested upland habitat. Presently the refuge consists of 389.5 acres with a revised projected final boundary encompassing 800 acres. Twenty two (22) parcels of land totaling 138.9 acres had been acquired within South Kingstown and incorporated into the refuge. The remaining refuge acreage is located within the Town of Narragansett. Town of South Kingstown staff continues to work with USF&WS in an effort to acquire additional land within the town for inclusion within the refuge.

2) Open Space / Conservation Land

The Town, of its own initiative, and/or in concert with various groups including DEM, USF&WS, The Nature Conservancy, South Kingstown Land Trust and Narrow River Land Trust has achieved significant success in the acquisition and protection of land for conservation purposes. Protection of properties within and contiguous to critical coastal resource areas is a priority in the town's overall Open Space Project Funding Policy, created in June 1999 as amended through August 2005. The following table delineates those protected parcels located within the area covered under the Harbor Management Plan. Said areas being those lands located south and east of U.S. Rt. 1.

Lead Agency	Total	Total Area	Comments
	Parcels	(Ac.)	
R.I. Agricultural Land Com.	4	289.4	
South Kingstown Land Trust	37	310.2	
Narrow River Land Trust	10	107.9	All parcels located within Narrow River watershed
USF&WS	30	724.1	Includes NWR areas
Town of South Kingstown	23	108.6	Includes Town Beach complex and Green Hill Park
Audubon Society of R.I.	3	71.9	
The Nature Conservancy	1	47.6	
RIDEM	17	411.8	
Private	5	106.9	Open space within residential cluster developments
TOTAL	130	2,178.4	Source: Town of South Kingstown GIS



Of the 130 parcels noted above the Town of South Kingstown contributed a total of \$1,364,600 in funds to purchase development rights or land acquisition to some of those properties.

3. Areas Identified for Study / Scientific Research Areas

The Green Hill Pond and Eastern Ninigret Pond watershed area has been the subject of intensive study and research for the past few recent years in response to the continuing pollution and its impact on the natural resources of that area. The Horsley Witten Group completed a series of DEM funded projects that include a Watershed Assessment Report (July 2005) and a Final Watershed Management Plan (April 2007). That research identified a number of potential technologies and land use strategies to mitigate pollution (i.e. nitrogen, bacteria) within the watershed.

The Town contracted with Woodard & Curran in 2007 to amend and update the Town Wastewater Facilities Plan (WWFP). That effort was funded through the Block Island and Green Hill Pond National On-Site Wastewater Demonstration Project grant awarded by USEPA. The draft WWFP Amendment Report (January 2008) identified measures to reduce nitrogen loading to the extent that would achieve the DEM mandated threshold limits.

G. Recreational/Commercial Fishing Areas

1) <u>Anadromous Fish Runs</u> - Presently there is one active anadromous fish run located entirely within South Kingstown. The overall fish run system targets river herring and is comprised of the Indian Lake Dam/Fish Ladder, Peace Dale Pond Dam/Fish Ladder and Wakefield Dam/Fish Ladder complex. Herring in the upper reaches of the fish run system swim out of Indian Lake downstream (via Freshmeadow Brook) to the Saugatucket River and then into Upper Point Judith Pond and ultimately out into Block Island Sound. This migration route includes navigating the three aforementioned fish ladders.

The Town is presently working with NOAA to establish a fish ladder at Factory Pond Dam. The project would be financially supported with *Cape North* oil spill settlement funds. Fish (i.e. river herring) would swim into Green Hill Pond (via Factory Brook) then into East Ninigret Pond and ultimately reach Block Island Sound through the Charlestown Breachway.

2) <u>Traditional Fishing Grounds</u> - There are a number of brackish water and salt water areas within South Kingstown that have historically been used by the public for fishing. Both the State property at Deep Hole and the Town Beach have traditionally provided a recreational area for surfcasters, who fish from the shore for striped bass, bluefish, tautog and other edible species.

As addressed in Section 2 (Historical Background) the salt ponds and ocean shoreline have played a significant role in human activity since Native Americans first harvested fish, shellfish and other food staples and biota during pre-European Colonial times. Fishing has traditionally occurred within the entire reaches of the salt ponds and continues to this day except where water quality restrictions prohibit such activities.

5. CURRENT USES

A. Harbor Structures

1. Moorings

There are nine (9) permanent mooring fields located within South Kingstown. Five are located within Point Judith Pond (A – D) while Potter Pond has two (E – F) and the remaining three are located in Green Hill Pond (G – I).

According to an inventory conducted by staff and reviewed the Harbor Master in August 2010, there are a total 146 moorings within those mooring fields located in Point Judith Pond, Potter Pond and Green Hill Pond, as well as, within riparian areas. No moorings were reported in the Narrow River. All existing moorings within South Kingstown are regulated by the Town.

MOORING AREA	AREA (ac.)	NUMBER OF
		MOORI NGS
"A"	13.34	16
"B"	20.51	16
"С"	10.99	30
"D"	12.78	25
"E"	4.90	7
"F"	11.62	16
"G"	0.40	1
"H"	1.76	8
"l"	0.37	3
Riparian "R"		24
Narrow River		0

The following described areas have been designated as permanent mooring fields within the Town of South Kingstown. See Appendix D for maps of each individual mooring field.

MOORING FIELD A: Beginning at the point E328476/N124504 thence along a straight line easterly to the point E329011/N124451 thence along a straight line southeasterly to the point E328873/N122522 thence northwesterly along a straight line to the point E328720/N122592 thence following the shoreline (50' out from MLW) to the point E328476/N124504.

MOORING FIELD B: Beginning at the point E326137/N121539 thence easterly along a straight line to the point E326783/N121539 thence southeasterly along a straight line to point E326583/N119551 then northwesterly along a straight line to the point E326164/N120790 thence following the shoreline (50' out from MLW) to the point E326137/N121539.

MOORING FIELD C: Beginning at the point E325533/N117784 thence southwesterly along a straight line to the point E325041/N117083 thence following the shoreline (50' out from MLW) within Turner Cove to the point E325533/N117784.

MOORING FIELD D: Beginning at the point E325105/N117019 thence southwesterly along a straight line to the point E324755/N114944 thence southwesterly along a straight line to the point E324485/N114931 thence along the shoreline (50' out from MLW) northerly to the point E324956/N116901 thence northeasterly along a straight line to the point E325105/N117019.

MOORING FIELD E: Beginning at the point E316758/N108184 thence southeasterly along a straight line to the point E316988/N108149 thence southerly along the shoreline (50' out from MLW) to the point E316758/N108184.

MOORING FIELD F: Beginning at the point E317165/N107594 southeasterly to the point E317574/N107494 thence southerly along the shoreline (50' out from MLW) to the point E317165/N107594.

MOORING FIELD G: Beginning at the point E298039/N107379 thence southeasterly along a straight line to the point E298130/N107358 then southwesterly along a straight line to the point E298045/N107224 then northwesterly along a straight line to the point E297932/N107265 thence northeasterly to the point E298039/N107379.

MOORING FIELD H: Beginning at the point E297229/N107328 then northeasterly along a straight line to the point E297591/N107384 thence southerly following the shoreline (50' out from MLW) to the point E297607/N107176 thence southwesterly along a straight line to the point E297354/N107091 thence northwesterly following the Cedar Island eastern shoreline (50' out from MLW) to a point E297229/N107328.

MOORING FIELD I: Beginning at the point E295139/N105920 thence northeasterly to the point E295235/N105947 thence southerly along a straight line to the point E295235/N105767 thence westerly along a straight line to the point E295140/N105766 then northerly to the point E295139/N105920.

Transient fields will be located at: 1) Smelt Brook Cove; and, 2) the area between Gardner and Plato Islands.

<u>2. Slips</u>

There are a total of 1,054 slips in the South Kingstown portion of Point Judith Pond. There are no marinas, boat yards, or yacht clubs in the other coastal ponds or in the Narrow River.

Facility Name	Slips	Marine Sanitary Pump-out Site (Public)	Marine Sanitary Pump-out Site (Private)
Stone Cove Marina	154	yes	
Marina Bay	68		
Ram Point Marina	194	yes	
Silver Spring Marina	88		
Billington Cove Marina	76		
Perrywinkle Marina	11		
Point View Marina	46		yes
Point Judith Marina	56		yes
Gooseberry Marina	34		
Snug Harbor Marina	10		
Lockwood (Kenport) Marina	90		
Cap'n Jack's Marina	26		
Point Judith Yacht Club	59		
URI Sailing Club	5		
Channel Marina ***	51		
Belle Vue Marina	86		

*** located on Potter Pond

It should be noted that discussions with the Town Harbormaster indicate that as of the Summer 2010 the majority of marinas had waiting lists for slip space.

3. Docks

Private docks (vis a vis docks within a commercial marina) may provide berthing for not more than four boats. Some property owners maintain a dock for swimming purposes, while others allow their docks to be used by neighbors for swimming and or as boat berths.

Number of Private Docks	
Green Hill Pond	87
Potter Pond	105
Point Judith Pond	81
Trustom Pond	0
Card Pond	0
Narrow River	42





B. Marinas and Private Facilities

There are a total of fourteen (14) marinas, one yacht club and one sailing club on the South Kingstown side of Point Judith Pond (Figure 7A) that provide berths for 1,054 boats. Specific slip counts and marine sanitary pump out availability for each facility are detailed in Sec.5.A.2. The Town owns 15 acres of land (Marina Park) at the head of the pond, which is leased to three private marinas, two boat clubs, and a restaurant with docks. Also, located in Snug Harbor (Figure 7B), are: a) a commercial boatyard with a marine railway servicing deep draft draggers and lobster boats; b) five marinas which cater to sport fishermen, lobstermen, and yachts; c) the site of a former shipyard; and, d) a gift shop, a store and a fish market.

At Jerusalem, just north of the breachway, there are two private commercial docks with lobster and sport fishing boats. These two areas support both a commercial fishing fleet and charter boats on the South Kingstown side of Point Judith Pond. At the fixed highway bridge that crosses the channel into Potters Pond, there are two marinas and a restaurant on the southeastern side and one restaurant on the northwestern side of the bridge. On Potter Pond there are two campgrounds where tenants maintain small cabins or mobile homes on leased land. There are no public facilities on Green Hill, Trustom, or Card Ponds. There is a small boat marina rental facility at Middlebridge.

C. Public Facilities

Following is a summary of marine related municipal facilities in the Town of South Kingstown:

- Marina Park has approximately 150 parking spaces, a five-acre public recreation area, an open field, a comfort station and two public launching ramps.
- The Town owns two parcels of the former Weeden Farm that total approximately 39.7 acres. Nineteen (19) acres of those properties comprises the Town Beach complex. There are walkways, a pavilion (with comfort station), a playground and picnic areas at the site. A 398 ft. long boardwalk, with two outboard seating areas, was originally constructed as part of the pavilion. The boardwalk suffered significant damage from a series of winter nor'easters in 1998-1999. As a result the boardwalk was disassembled and removed.
- There are the following public boat launching facilities (saltwater) in Town:
 - Pond Street Boat Ramp (Town)
 - Marina Park Boat Ramp (2) (Town)
 - Gooseberry Road Boat Ramp (Town)
 - Narrow River Public Boat Ramp and Fishing Area (State)
- The State of Rhode Island has developed the Port of Galilee into one of the leading commercial fishing industries in the northeast region The Port has a State pier, several charter fishing vessels, and two of the Block Island ferries. Because of the Port's proximity to Block Island and Rhode Island Sounds, the Nantucket Shoals, and the Continental Shelf, it has grown into a prime commercial fishing center. In many years Galilee ranks fourth or higher in New England commercial fish landings and is in the top twenty nationally.

- There are no existing federal anchorage areas or special anchorage areas located within South Kingstown waters. The closest federal anchorage is located at the Port of Galilee in Narragansett.
- The sole municipal designated swimming area (in marine waters) is the Town Beach. The public beach is formally open between Memorial Day and Labor Day. During that period the pavilion is operational and Town staff (i.e. lifeguards) are on duty.
- There are no officially designated windsurfing areas within South Kingstown waters.

D. Shoreline Public Access

The HMAC Public Access Subcommittee completed an inventory of public access sites in South Kingstown as part of the original Harbor Management Plan development (Figures 8A - 8G and Appendix C). The inventory was a complete summary of all shorefront parcels in the Town of South Kingstown that are either: a) owned by the Town, the State, or the Federal government; b) platted and accepted as Town or State roads that extend to, or pass over, the mean high water mark of a tidal water area; or, c) designated as a public right-of-way to the shore by the RICRMC.

Two lists, List A and List B, were developed. The following information is given for each site: location, water area, ownership, Assessor's Plat, recorded plat, size, condition, parking, signage, description, and recommendations.

In List A, a total of forty four (44) sites were identified. Of these forty four (44):

a) twenty six (26) currently appear to be well-suited for public shoreline access;

b) of these twenty six (26), at least ten (10) could be improved;

c) of the eighteen (18) unsuitable sites, three (3) could be rendered suitable as public access points if upgraded, while the remaining fifteen (15) should probably be protected as conservation areas with no provisions for access; and,

d) of the total forty four (44) sites, at least thirty (30) need to be marked.

In List B, twenty (20) or more potential public shoreline access points are identified, which, due to various uncertainties, require additional legal verification before they formally can be characterized as public ways.

Currently accessible with parking available are the following: (Note: "M" = marked; "U" = unmarked)

- <u>Federal:</u>
 Trustom Pond National Wildlife Refuge M
- <u>State:</u>
 Deep Hole M (Matunuck Point)














- Matunuck Management Area M (East Matunuck State Beach)
- Public Boat Ramp and Fishing Area M (Narrow River)
- Succotash Salt Marsh M (Matunuck)

• <u>Town:</u>

- a) OCEANFRONT:
 - Town Beach M (Matunuck)
 - Ocean Avenue M (Matunuck) park at Deep Hole
 - Charlestown Beach Road West U, park at Charlestown lot
 - Moonstone Beach Road U
 - Green Hill Avenue marked with "Green Hill Civic Association" *
 - Green Hill Beach Road U *
 - Green Hill Beach U *
 - *no parking available, but these are Town access points

b) POINT JUDITH POND

- Marina Park -M (two boat ramps)
- Perrywinkle Road U (Snug Harbor), parking unclear
- Gooseberry Road (boat ramp) M
- Pond Street (boat ramp) M

c) POTTER POND

- Washington Street M
- Park Avenue U
- Lake Avenue U

d) NARROW RIVER

- John Street M
- River Avenue U
- Hahn Avenue U
- Lafayette Avenue U
- Middle Bridge U

See Section 6.A for a discussion of relevant public access issues.

E. Water Use (Type) Classification

In 1983, the Coastal Resources Management Council (CRCM) established a type (i.e. use) classification system for the activities in the coastal waters of the State. Figures 9 and 10 show the current use type classifications for the salt ponds and the Narrow River.

• Type 1: Conservation Areas -- The Council's goal is to preserve and protect Type 1 waters from activities and uses that have the potential to degrade scenic, wildlife, and plant habitat values, or which may adversely impact water quality and the diversity of natural shoreline types.

- Type 2: Low-intensity Use -- The Council's goal is to maintain and, where possible, restore the high scenic value of these areas, while providing for low-intensity uses that will not detract from these values.
- Type 3: High-Intensity Boating -- The highest priority uses of Type 3 waters and adjoining land areas within the Council jurisdiction are (a) marinas, mooring areas, public launching ramps, and other facilities that support recreational boating and enhance public access to tidal waters; and (b) boatyards and other businesses that service recreational boaters.
- Type 4: Multi-purpose waters -- The Council's goal is to maintain a balance among the diverse activities that must coexist in Type 4 waters. The changing characteristics of traditional activities and the development of new water-dependent uses shall, where possible, be accommodated in keeping with the principle that the Council shall work to preserve and restore ecological systems.
- Type 5 -- Commercial and Recreational Harbors -- The highest priority uses of Type 5 waters and adjoining land areas within Council jurisdiction are (a) berthing, mooring, and servicing of recreational craft, commercial fishing vessels, and ferries; (b) water-dependent and water-enhanced commerce, including businesses catering to tourists; (c) maintenance of navigational channels and berths, and removal of obstructions to navigation; and (d) activities that maintain or enhance water quality and scenic qualities, including the preservation of historic features. The Council shall suitably modify or prohibit activities that significantly detract from or interfere with these priority uses.
- Type 6 -- Industrial Waterfronts and Commercial Navigation Channels Highest priority uses of Type 6 waters and adjacent lands under Council jurisdiction are: (a) berthing, loading and unloading, and servicing of commercial vessels; (b) construction and maintenance of port facilities, navigation channels, and berths; and (c) construction and maintenance of facilities required for the support of commercial shipping and fishing activities. The Council shall prohibit activities that substantially detract from or interfere with these priority uses.

Trustom Pond and Card Pond are Type 1 waters. Green Hill and Potter Ponds are Type 2 waters, with the exception of the northern most cove in Potter Pond being Type 1 water. Point Judith Pond contains Types 1, 2, 3, 4, 5 and 6 waters.

The Narrow River contains both Type 1 and 2 waters. The two areas of conservation waters (Type 1) are found at the head of the River in North Kingstown and at the most southerly portion, Pettaquamscutt Cove, in South Kingstown.

F. Water Quality Classification

In May 2009, RIDEM amended its water quality classifications (RI DEM, Water Quality Regulations, 2006 as amended). The State has classified all fresh and saltwater bodies and assigned water quality standards for each (Figures 11 and 12). It should be noted that these classifications reflect the RI DEM standards for the area and may not necessarily indicate the





actual current water quality. Following are descriptions of the DEM water quality classifications for seawater.

- Class SA: These waters are designated for shellfish harvesting for direct human consumption, primary and secondary contact recreational activities, and fish and wildlife habitat. They shall be suitable for aquaculture uses, navigation and industrial cooling. These waters shall have good aesthetic value.
- Class SB: These waters are designated for primary and secondary contact recreational activities; shellfish harvesting for controlled relay and depuration; and fish and wildlife habitat. They shall be suitable for aquaculture uses, navigation, and industrial cooling. These waters shall have good aesthetic value.
- Class SB1: These waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges. However, all Class SB criteria must be met.
- Class SC: These waters are designated for secondary contact recreational activities, and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value.

The water quality classifications set for Green Hill, Trustom, Card, Potter, and Point Judith Ponds and the Narrow River are SA waters. The exceptions are the SB classification assigned to three areas in Point Judith Pond: the upper Pond (including the Saugatucket River downstream of the Main Street Dam); the area around Galilee where the State pier and fishing fleet are located; and the area around Snug Harbor where marinas are concentrated which is designated SA(b).

Despite Green Hill Pond's SA designation, it does not meet SA classification for a majority of the year. In recent years the coliform counts in the Pond have exceeded SA standards and shell fishing has been prohibited (Figure 14). None of the Narrow River meets its SA classification. Under certain conditions, parts of the Narrow River may even exceed the SB standards. Shell fishing is prohibited in the entire River. As of May 1991, the section north of Crown Point and Toby Point in Upper Point Judith Pond has been closed permanently to shell fishing (Figure 13).

G. Coastal Zoning and Development

The following zoning designations, per the official Town Zoning Map (see Appendix J), apply to the listed coastal areas:

R20 = 20,000 sq ft; R40 = 40,000 sq ft; RR80 = 80,000 sq ft; RLD 200 = 200,000 sq ft.; HFD = High Flood Danger (overlay district); CW = Commercial Waterfront; OS = Open Space; CN = Commercial Neighborhood; GI = Government and Institutional; and, SMD = Public Marina Special Management District (NOTE: R = Residential)











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It should be noted that the RI CRMC has designated certain land as Areas of Critical Concern in which only 80,000 s.f. (or larger) zoning density is allowed and Lands of Critical Concern in which the minimum lot size is 120,000 s.f. by State law (see Section 5.H). As such, in some cases the municipal zoning designation conflicts with the minimum two acre (80,000 s.f.) and three acre (120,000 s.f.) requirement from CRMC.

1) <u>Narrow River</u> - The land in the Narrow River Watershed within South Kingstown is zoned RR80, with the exception of the Middlebridge area which is zoned R20.

2) <u>Point Judith Pond</u> - The upper part of the Pond is zoned SMD and Commercial Waterfront. The watershed for the Pond is zoned RR80 from Congdon Cove south to High Point. At this point, the zoning changes to a mix of R20 and Commercial Waterfront. South of this area to Hazard Island is zoned Public.

The South Kingstown Comprehensive Community Plan was amended by the Town Council in June 2008 to establish the Public Marina Special Management District. The district comprises 7.52 waterfront acres of the 13.33 acre Town owned Marina Park. The district is intended to provide a regulatory framework to govern use of the subject properties, support historic land use patterns and allow for changes (i.e. expansion) to occur consistent with recreational, functional and aesthetic values of that land. The subject parcels have historically included marine-based uses and represent one of the primary waterfront locations for marine related businesses in town.

3) <u>Potter Pond</u> - The Potter Pond watershed is predominantly R40, with some RR80 zones. There is a mix of commercial waterfront and public land on the southern part of the pond. The southwestern part of the Pond is zoned R20 and RLD 200 around Segar Cove.

4) <u>Trustom and Card Ponds</u> - The land to the northeast of Trustom Pond is zoned RLD 200. The land to the northwest and around the shoreline is zoned Public, with the stretch of shoreline land from Trustom past Card's Pond being HFD zone. Card Pond is surrounded by RLD 200 zoning.

5) <u>Green Hill Pond</u> - Most of the land in the Green Hill Pond Watershed is RR80, with the exception of R30 on the easterly side of flat Meadow Cove and to the north from Matunuck School House Road to Old Post Road. The land from the Pond to the ocean is designated as HFD.

H. Potential Future Development

The South Kingstown Planning Department (GIS Administrator) performs a build-out analysis on an annual basis to calculate potential future development throughout the Town. For the purpose of the Harbor Management Plan the build-out potential focuses on the Narrow River watershed and the Salt Pond Region watershed. The Salt Pond Region watershed is further delineated into the following drainage sub-basins: Point Judith Pond; Potter Pond; Card Pond; Trustom Pond; and, Green Hill Pond.

Results of the 2009 build-out analysis for the Narrow River watershed and Salt Pond Region watershed indicates the following residential development potential.

Watershed / Sub-	Total Lots	Existing	Lots with	Potential New	Water Front
Basin		Dwelling Units	Development	Dwelling Units	Vacant Lots **
			Potential		
Narrow River	626	523	71	151	3
Card Pond	394	333	65	148	2
Green Hill Pond	1779	1322	141	206	15
Point Judith Pond	611	588	63	263	12
Potter Pond	1242	1565	88	210	15
Trustom Pond	183	163	5	6	1
Narrow River					
(Sub Total)	626	523	71	151	3
Salt Pond Region					
(Sub Total)	4209	3971	362	833	45
TOTAL	4835	4494	433	984	48

** Number indicates the total vacant water front lots that are included in the total of development potential lots.

Based on the information above it appears that the potential exists for an 11.3% increase in developed lots within the Narrow River watershed. The Salt Pond Region watershed could realize an 8.6% increase in lot development. Maximum development of those lots could result in a 28.8% increase in total dwelling units within the Narrow River watershed and a 20.9% increase for the Salt Pond Region watershed.

Potential development increases varies for the five (5) sub-basins that comprise the Salt Pond Region watershed. Specifically the potential percent of increase in total dwelling units for the sub-basins is as follows (in order of magnitude): Point Judith Pond - 44.7% Card Pond - 44.4%; Green Hill Pond - 15.6%; Potter Pond - 13.4%; and, Trustom Pond - 3.7%.

I. CRMC Land Classifications Within SAMPs

The Rhode Island Coastal Resources Management Council has an adopted land classification system for the watersheds of the salt ponds (Figure 15) and the Narrow River (Figure 16). The classifications as identified and defined in the Narrow River Special Area Management Plan and Salt Pond Region Special Area Management Plan (both as revised through April 12, 1999) are:

<u>Self-Sustaining Land</u>: developed or undeveloped parcels at a density of not more than one residential unit per 80,000 sq. ft.

Lands of Critical Concern: developed or undeveloped parcels at densities of one residential unit per 120,000 sq. ft.

Lands Developed Beyond Carrying Capacity: developed at densities of one residential or commercial unit on parcels of less than 80,000 sq. ft., and frequently at higher densities of 10,000 sq. ft. or 20,000 sq. ft.





As can be seen from Figure 15, the lands to the north, east, and southwest of Green Hill Pond are Developed Beyond Carrying Capacity. The lands to the southwest and northeast of Potter Pond also are Developed Beyond Carrying Capacity. The remainder of Green Hill and Potter Ponds is Land of Critical Concern. The South Kingstown side of Point Judith Pond is a mix of Land of Critical Concern and Lands Developed Beyond Carrying Capacity. It should be noted that the majority of properties along the Town of Narragansett side of Pt. Judith Pond are classified as Land Developed Beyond Carrying Capacity.

Figure 16 shows that the majority of the land in the Narrow River watershed on the South Kingstown side is classified as Land of Critical Concern. The areas around Middlebridge Road, Hillside Drive, and River Heights Drive are classified as Lands Developed Beyond Carrying Capacity. It should be noted that much of the land on the Narragansett side of Narrow River is classified as Land Developed Beyond Carrying Capacity.

It should be noted that the Town has established a Carrying Capacity Overlay (CCO) District (South Kingstown Zoning Ordinance, Sec. 606). This district includes areas classified by CRMC as "Land Developed Beyond Carrying Capacity". Section 606 prohibits accessory apartments in non-sewered areas. The intent here is to minimize further exacerbation of over building in those areas that already are densely developed and that depend on OWTSs to handle septage.

J. Ocean SAMP

In August 2008 CRMC began development of the Ocean Special Area Management Plan (SAMP). The final draft was completed in July 2010. The purpose of the Ocean SAMP is to establish use zones for Rhode Island's offshore waters. CRMC will coordinate efforts with support from the University of Rhode Island, the Army Corps of Engineers and the Minerals Management Service. The Town Council has designated staff to represent the Town at Ocean SAMP stakeholder meetings and related public informational forums.

Certain types of potential development (i.e. offshore renewable energy facilities) could impact the Town from both a water use and land use perspective. For example: transmission lines from a wind turbine farm might come ashore in South Kingstown; use designations of specific offshore water zones might preclude existing uses such as boating and/or fishing; and, placement of facilities (i.e. electric sub-station) may occur a considerable distance inland from the immediate shoreline impacts.

6. ISSUES, GOALS, POLICIES AND RECOMMENDATIONS

A. PUBLIC ACCESS

ISSUE - #1

The public right to access the shore line and coastal waters needs to be addressed in a comprehensive manner. Physical, visual, interpretive and legal access each must be considered. There are sites that need to be identified, developed, or maintained in order to afford the public their legal rights to public access to the waters.

The basic rights of the public regarding access to the shore are found in Article 1, Section 17 of the Rhode Island Constitution. The Article states that *"The people shall continue to enjoy and freely exercise all the rights of fishing and privileges of the shore . . . including but not limited to fishing from the shore, the gathering of seaweed, leaving the shore to swim in the sea and passage along the shore"*

The public right to have access to the shore and adjacent marine waters deserves special attention in harbor management planning. Because public access is both a personal and civic oriented issue, it serves as a means of attracting and educating the public as well as increasing shoreline property value. The concept of public access includes physical, visual, interpretive and legal access aspects, each of which should be promoted in the study of the issue.

Physical access includes streets (both constructed and 'paper'), pedestrian walkways, beaches, parks, or undeveloped open space. Many of these already exist in both Narragansett and South Kingstown. Street ends and ramps preserve view corridors that guarantee visual links with the water, especially in developed areas. Open spaces are natural and unencumbered, allowing people direct access to the water. State and town beaches provide access to both residents and visitors, based on a predetermined regulations and fee structures. Safety and liability considerations are the issues with which towns need to be concerned. Measures to prevent accidents can include fencing, buffering, or signage.

Visual access is an important component of public understanding and appreciation of the shoreline. Maintaining vista corridors or restricting building heights help to preserve visual links to the water. The Hannah Robinson Tower on Route 1 and Ocean Road in Narragansett each provide a panoramic view of the Bay, one which complements physical access. Low lying wetlands, bridges, and restaurants with water views also allow the public to view the unique qualities of the water's edge.

Interpretive access is the educational component of the public access issue, as it enables people to learn more about the harbors and town's waterfront heritage. Plaques, interpretive signs, permanent displays, and waterfront festivals all provide opportunities for the public to gain a better understanding of the historic, environmental, and economic dynamics of harbor areas. Properly designated and protected access points afford the public an opportunity to observe closely a working waterfront.

Legal access, in the form of public roads, easements, or dedications, is perhaps the most complicated mechanism for ensuring public access for the residents. The public trust doctrine states that in Rhode Island the mean high tide line separates public and private ownership of beach property. This ownership delineation was upheld with relevant clarification by the Rhode Island Supreme Court in the landmark case of State v. James Ibbison III et al (448 A.2d 728).

Rights-of-way (ROW) and riparian rights are other jurisdictional concepts that must be clarified. In recognition of federal and state public trust doctrines, the Town of South Kingstown acknowledges the public right of access below the mean high tide line and in tidal areas. All coastal areas, whether they abut public or private lands, should be subject to the application of these doctrines

which acknowledge access in tidal areas (including coastal ponds and waterways) for the purpose of walking, fishing, recreating, or collecting seaweed, as a fundamental privilege.

The Town of South Kingstown recognizes that some of these tidal areas are only accessible by water. Individuals who cross restricted (public or private) lands to reach these coastal areas may be trespassing and therefore subject to penalties. Also, the Town acknowledges that such access may be temporarily limited in such extenuating circumstances as the protection of nesting least tern and piping plover populations at Trustom Pond National Wildlife Refuge.

GOALS - # 1

1. To maintain and to increase the number of public access points to the tidal waters of South Kingstown, wherever feasible.

2. To maximize and to improve the use of public access areas and the associated facilities, wherever feasible.

3. To protect the natural environments and wildlife habitats associated with public access sites.

4. To protect rights-of-way from the encroachment by adjacent uses.

5. To institute an educational program concerning the availability, utilization and historic significance of public areas along the shore.

6. To work toward bringing all docks in Town tidal waters into compliance with State regulations.7. To maintain those dedicated easements used to accommodate drainage outfalls and underground cables.

POLICIES - #1

1. The Town will work with the RICRMC and the RIDEM to identify and to develop areas of public access and associated parking facilities. This will include, where necessary, the investigation of the legal status of existing and potential public access sites and rights-of-way in the Town including municipal 'paper streets'. The Town will work with applicable State agencies to preserve, protect and enhance rights-of-way to the shoreline.

2. The Town will work with the RICRMC to bring all docks in Town waters into compliance with State regulations.

3. The Town will work with the State to maintain the existing facilities, physical conditions, safety, and aesthetic qualities of public access sites in the Town.

4. The Town will work with the State to protect the public access sites from environmental degradation, over-development, and privatization.

5. The Town will work with the State to establish a funding mechanism for the improvement and expansion of facilities identified in the recommendations.

6. The Town shall continue the policy that riparian lines shall be considered as that being a straight line extension of existing property lines, as is generally accepted under Rhode Island case law. Those aggrieved should seek relief within the judicial system.

RECOMMENDED ACTION - #1

1. The Town will work with RI CRMC, using the Town inventory and recommendations compiled in 1991 as updated through July 2009 (see Appendix C), to clarify and to develop all public access ways. The Town will continue its ROW maintenance efforts that work to preserve, protect and

enhance public rights of way that provide access to the shoreline. The Town will also set a priority list for those CRMC rights of way that are municipally owned.

2. The Town will identify possible areas for increased parking facilities.

3. The Town will work with the State to develop additional public access ways and parking facilities through grants and other cooperative efforts.

4. The Town will utilize volunteers through an "adopt-a-spot" program to maintain public access sites.

5. The Town will work with RI CRMC to inventory all docks.

6. In the case of commercial boating facilities or organizations which abut or are over public tidal lands, the Town will petition RI CRMC to require a public access plan as a condition of the R I CRMC assent.

B. WATER QUALITY

ISSUE - # 2

On-Site Wastewater Treatment Systems are a major contributing source of pollution to the tidal waters of South Kingstown. If not addressed, the problem will become more pronounced as development increases and existing septic systems age.

<u>1) Nonpoint Source Pollution</u> - Non-point source pollution is contamination that does not come from a single point (i.e. smoke stack or discharge pipe). The State considers the following to be non-point sources of pollution: a) septic systems, b) storm water runoff from roads, agricultural fields and lawns, construction sites; c) erosion and sedimentation; d) underground storage tanks; e) road deicers; f) fertilizers and pesticides.

Unlike the contaminants from a smoke stack or large outfall pipe (i.e. point source discharge) that may be treated before entering the environment, non-point pollution sources occur over a widespread area. This makes identification and adequate treatment problematic. While a single septic system or fertilized lawn may not pose a serious threat, the cumulative effect of many septic systems and lawns in an area can cause significant contamination. Often, it is this cumulative effect of many non-point sources that overwhelms the capacity of the environment to adequately dilute or treat the contaminants.

<u>a. Septic systems</u> - Septic systems (also known as On-site Wastewater Treatment Systems or OWTSs) within the watersheds are one of the primary sources of nitrogen and pathogens (i.e. bacteria) to the coastal ponds causing eutrophication and subsequent closure of shellfish beds. The watersheds of the salt ponds and Narrow River (Figure 18) are primarily developed as residential, with small pockets of commercial development. These non-sewered developed parcels make bacterial contamination and nutrient loading the major threat to water quality.

The South Kingstown Town Council adopted a comprehensive On-Site Wastewater Management (OWWM) Program in 1999. This adoption included passage of an On-Site Wastewater Management Ordinance (Town Code, Chapter 19, Division 9) and associated governing regulations. The Ordinance established a mandatory OWTS inspection and maintenance program.

The initial baseline inspection element established an estimated seven (7) year timeframe required to administer inspection of the 6400+ existing septic systems. The inspection schedule delineated the Town into regions by priority based on extent and presence of critical resources (i.e. salt ponds, aquifers).

Years 1 through 3 of the OWTS inspection program covered a total area that approximates the boundaries of the Salt Pond Region SAMP. Year 4 included the Narrow River SAMP area and the major groundwater reservoirs in Town (i.e. Chipuxet).

OWTS inspection results for those properties within the Salt Pond SAMP indicate that 3,274 of 3,456 systems were inspected (a 94.7% compliance rate). A total of 3,187 systems were determined to be adequately functioning (97.3%). Ninety seven (97) systems were found to be dysfunctional (2.7% of the total systems inspected). There were 208 cesspools present, comprising six percent (6%) of the total OWTSs.

Year 4 inspection figures, which include the Narrow River SAMP area, show a total of 824 of the 857 system inspected were functional (96.2%). Thirty three (33) systems failed inspection (3.8% of the total). There were 76 cesspools present (8.8% of total OWTSs inspected).

These aforementioned septic system inspection results indicate that a relatively high percentage of existing systems function properly in physically handling wastewater. However, it should be noted that the vast majority of these OWTSs are conventional systems. As such, they provide no additional treatment (i.e. nitrogen reduction, pathogen removal) of wastewater effluent.

In January 2008 DEM revised its rules and regulations governing local, design, construction and maintenance of on-site wastewater treatment systems. These amendments included Rule #39 - Requirements In The Salt Pond And Narrow River Critical Resource Areas. The rule mandates that *"Nitrogen reducing technology shall be required for all OWTS Applications for New Building Construction, all OWTS Applications for Alteration to a Structure, and OWTS Applications for Repair that include leachfield expansion or replacement in the Salt Pond and Narrow River critical resource areas"*

The South Kingstown Zoning Ordinance (Sec. 504) requires a property owner to apply for and obtain a Special Use Permit from the Zoning Board of Review for any new OWTS leachfield proposed within 150 ft. of a wetland. This municipal requirement is more stringent that the DEM regulated 50 ft. separation distance between edge of wetland and OWTS leachfield.

When excessive nutrients (nitrogen and phosphorus) are added to a body of water (salt, fresh, or brackish), the result often is an acceleration of the plant growth, or eutrophication. If the water body has limited flushing the eutrophication process and all the consequent impacts and changes become even more evident.

Excess nitrogen (in the form of nitrates) or phosphorus from septic systems and lawn fertilizers can enter the ponds either from surface runoff or through the groundwater that feeds the ponds. This stimulates accelerated plant growth, seen as thick algal mats and macrophytes (larger plants). As the plants die and decay, the resulting depletion of oxygen may kill both fin and shellfish. With

increased decomposition of plants and animals, the actual texture of the pond bottoms changes from sandy gravel to black, silty mud, and the ponds fill in more quickly.

According to the DEM regulations regarding on-site wastewater treatment systems (as amended January 1, 2008), a failed OWTS means any OWTS that does not adequately treat and disperse wastewater so as to create a public or private nuisance or threat to public health or environmental quality, as evidence by, but not limited to, one or more of the following conditions:

(1) Failure to accept wastewater into the building sewer;

(2) Discharge of wastewater to a basement; subsurface drain; stormwater collection, conveyance, or treatment device; or watercourse unless expressly permitted by the Department;

(3) Wastewater rising to the surface of the ground over or near any part of OWTS or seeping from the absorption area at any change in grade, bank or road cut;

(4) The invert of the inlet or the invert of the outlet for a septic tank, distribution box, or pump tank is submerged;

(5) The liquid depth in a cesspool is less than six inches from the inlet pipe invert;

(6) Pumping of the cesspool or septic tank is required more than two times per year;

(7) OWTS is shown to have contaminated a drinking water well or watercourse;

(8) If a septic tank, pump tank, distribution box, or cesspool is pumped and groundwater seeps into it; or

(9) Any deterioration, damage, or malfunction relating to any OWTS that would preclude adequate treatment and dispersal of wastewater.

(10) Excessive solids are evident in the distribution box or distribution lines.

The DEM regulations governing OWTSs serve as minimum criteria for OWTS design and location. Cities/towns have the legal authority to enact stricter regulations. It should be noted that there are several often common conditions that the State does not address in its regulations that could be addressed at the local level. For example, the State regulations do not address OWTS installation on sites where wastewater percolates so rapidly through sandy/gravelly soils to the groundwater that adequate attenuation of pollutants may not occur.

b. Specific OWTS problems in the watersheds

(1) <u>Soils</u> - There are significant areas of the watersheds in both the salt ponds and Narrow River which have severe soil limitations for siting septic systems.

(2) <u>Design</u> - A properly functioning conventional septic system is not designed to remove nitrogen or pathogens. However, an advanced treatment system may remove anywhere from 40 to

80 percent of the nitrate-nitrogen entering a septic system. Installation of additional treatment devices (i.e. UV filter) can remove some pathogens.

(3) <u>Cesspools</u> - Many septic systems are cesspools, built before the enactment of State standards in 1970 that required installation of a conventional septic system. Cesspools provide little or no treatment of waste effluent.

(4) <u>Lot size</u> - Many lots within the coastal zone are too small to adequately support a conventional on-site wastewater treatment system. These small lots, considered substandard by current zoning, have grandfathered rights to construct a dwelling with a septic system. This problem can be mitigated to a certain degree by installation of an advanced treatment OWTS. DEM regulations allow for a 50% reduction in the leach field foot print for systems that incorporate advanced treatment technology.

Within the coastal areas of South Kingstown there are approximately 221 substandard lots (i.e. parcels with less than minimum lot size per the applicable zoning designations). Those lots are dispersed throughout the Salt Pond and Narrow River regions. The specific breakdown indicates parcels within the Green Hill Pond (80), Potter Pond (25), Point Judith Pond (16), Card Pond (5), Narrow River (20), and ocean front (75) areas contain substandard lots of record. It should be noted that some of these parcels lack adequate area to support a structure. As such those particular properties are not buildable from a practical perspective.

(5) <u>Flushing</u> - Salt ponds do not receive a large degree of flushing from fresh or ocean water. This is especially the case for salt ponds where no breachway exists to provide tidal flushing. This means that contaminants become concentrated in the water bodies over time. The Wastewater Facilities Plan Amendment, January 2008, included an assessment of improving Green Hill Pond flushing by means of creating a permanent breachway between the pond and Block Island Sound. Analysis indicates that such a breachway could reduce the total nitrogen into Green Hill Pond by eighty percent (80%) which is greater than the 61% reduction needed to achieve the desired Eutrophication Index of 65. The Town continues its dialogue with DEM and CRMC regarding the feasibility of such a structure.

(6) <u>Development</u> - A review of parcel data indicates that the potential exists for significant development adjacent or proximal to the salt pond (see Sec. 5.H). In addition the number of existing vacant lots within the Salt Pond Region SAMP and Narrow River SAMP illustrates the potential for significant build out. It should be noted that many of these parcels are substandard by size under present zoning but are 'grandfathered' and, therefore, could be developed.

(7) <u>Age and Maintenance</u> - If properly sited and maintained, a septic system should last between 20 and 30 years. A system that has not been properly maintained (i.e. regularly pumped) has a high likelihood of failure.

GOALS - # 2

1. To prevent further contamination of the coastal resources from septic systems.

2. To remediate improperly functioning septic systems.

3. To prevent closure of additional shellfish beds and areas of contact recreation.

4. To replace cesspools and failed conventional OWTSs with advanced treatment OWTSs within the Salt Pond Region SAMP area and the Narrow River SAMP area per DEM regulations.

POLICIES - # 2

1. The Town will pursue a land use plan in which zoning measures minimize the impact of septic systems by controlling the amount of development in the watersheds.

2. The Town will continue to take necessary steps to remediate improperly functioning septic systems in proximity to the coastal waters. This will include the administration and enforcement of the local On-site Wastewater Management Ordinance and Regulations.

3. The Town will continue to promote the use of advanced treatment OWTSs that remove at least 50 percent of the nitrate nitrogen in areas proximate to coastal waters and in areas within the salt pond region and Narrow River watersheds.

RECOMMENDED ACTION - # 2

1. The Town will continue to administer its Town-wide On-Site Waste Water Management District, including compliance with the OWWM Ordinance and governing Regulations.

2. The Town will investigate funding opportunities that can assist property owners for repair/replacement of improperly functioning OWTSs. This includes continuing to request Community Septic System Loan Program (CSSLP) funds from RICWFA.

3. The Town will continue its public education outreach program on the proper care and maintenance of a septic system.

4. The Town will continue maintenance of records of the inspections for approved advanced treatment systems as stipulated in the Town conditions of approval.

5. The Town will investigate the extension of sewers to areas identified as having high probability of septic system failures.

7. The Town will work with the State to promote the availability and proper functioning of sanitary facilities along the waterfront, to include the construction of marine pump-out facilities.

8. The Town will review the Zoning and Land Development & Subdivision Regulations in an effort to provide the necessary protection for environmentally sensitive areas.

9. The Town will require that vegetated (shrubs/trees) buffers be used in areas of construction within 200 feet of wetland or water body as appropriate to mitigate contamination from septic leachate or run-off.

ISSUE – # 3

Significant contamination of both ground and surface water bodies can be caused by erosion, sedimentation, and storm water runoff. Such contaminants as heavy metals, hydrocarbons, excess nutrients, sediment, and pesticides transported by the forces of wind and water can pose serious threats to humans and to the environment.

c. Erosion, Sedimentation and Storm Water Runoff

Presently the following water bodies are included in the Section 303(d) List of Impaired Waters developed by DEM (April 2008): Green Hill Pond (dissolved oxygen, fecal coliform); Point Judith Pond (fecal coliform); Saugatucket Pond; Indian Run Brook (heavy metals, fecal coliform); and, the

Saugatucket River (iron, fecal coliform). The causes of pollution include both point source and non-point source discharges.

As of May 2009 DEM had issued Total Maximum Daily Loads (TMDLs) to South Kingstown for the following water bodies located within the Saugatucket, Pettaquamscutt River and Coastal basins: Narrow River (fecal coliform); Green Hill Pond (fecal coliform); Saugatucket River (fecal coliform); Point Judith Pond (fecal coliform); and, Indian Run Brook (heavy metals).

(1) <u>Erosion and Sedimentation</u> - Erosion can cause water quality problems because of increased sediment and organic matter being introduced. This can have many deleterious effects, including:

- reducing the amount of light needed for plant and animal growth
- smothering insects that serve as fish food and the benthic community
- injuring spawning and juvenile fish
- clogging organisms' gills/filters
- reducing the ability of organisms to capture prey
- transporting contaminants which adhere to the soil particles
- decreasing the available oxygen needed for life (Scheuler, 1987, Wetzel, 1979)

(2) <u>Storm Water Run-off</u> - Storm waters that flow over paved surfaces (i.e. roads, parking lots) or from slightly vegetated areas contribute heavy metals, sediments, hydrocarbons, pathogens and other contaminants to the surface waters within a watershed such as the Narrow River and Salt Ponds watersheds (Figure 17). In A Nationwide Urban Runoff Program Study (US EPA, 1983), the US EPA found that the predominant pollutants of concern are heavy metals (copper, lead, and zinc), nutrients (phosphorus and nitrogen), and sediment. The report also indicates that these heavy metals pose a significant threat to aquatic life in the northeast.

The Town has conducted an inventory of all catch basins and storm water discharge pipes in the Town to comply with EPA and DEM mandated Phase II Storm Water Regulations for MS4's (RIPDES Permit No. RIR040037). This information can be used to prioritize remediation actions necessary to ameliorate storm water problems.

In addition, the Town Council established a new Storm Water Management Ordinance (Town Code of Codes, c. 20) in March 2009 that included an "Illicit Discharge, Detection and Elimination" article. Further, the Town Council adopted a Soil Erosion, Run Off and Sediment Control article (Town Code, C. 20, Article II) on December 15, 2009.

(3) <u>Fertilizers and Pesticides</u> - The application of fertilizers, pesticides, and herbicides for both home and agricultural use can degrade both ground and surface water. The excess runs off into surface water and can seep into the groundwater. Nitrogen and phosphorus are the major nutrients of concern for marine waters and fresh waters respectively (see Section 5. A). The current federal safe drinking water standard for nitrate-nitrogen is ten parts per million; any level over that poses health threats such as methemoglobinemia ("Blue Baby Syndrome").



(4) <u>Wildlife</u> - Specific sources of bacteria are now identifiable with the advent of Polymerase Chain Reaction (PCR) testing. In the Fall 2002 DEM performed PCR testing of bacteria sources in Green Hill Pond watershed, on a limited basis. Results showed that only 28 of the 251 bacteria sources were human (11.1% of total). Conversely, bird (77) and wildlife (95) were responsible for 172 of the bacteria sources (68.5% of total). These PCR results, although limited, indicate the need for an effective wildlife management program to control populations, especially for those waterfowl species (Canada geese, swans) that have experienced a significant population growth in the last decade or so.

GOALS - # 3

1. To decrease the amount of contamination from road runoff (oils, heavy metals, organics)

2. To decrease the amount of runoff from fertilizer and pesticide use

3. To minimize the amount of sedimentation to the waters

4. To minimize the contamination caused by storm water runoff

5. To decrease bacteria contamination sources, most notable being contamination resulting from presently unmanaged waterfowl and wildlife populations inhabiting areas in close proximity to the coastal ponds and within the salt pond watersheds.

POLICIES - # 3

1. The Town will work with neighboring towns to develop a plan to minimize the amount of runoff entering the shared waters.

2. The Town will pursue a watershed approach to land use planning for the areas.

3. The Town will pursue regulatory means of minimizing erosion and sedimentation through adopting a storm water management ordinance.

4. The Town will practice erosion and sediment control policies consistent with the RI DEM Recommendations for Storm Water Management, as amended, for future Town projects.

5. Through public education, the Town will encourage residents to reduce and to better manage their use of fertilizers and pesticides in watershed areas.

6. The Town supports the use of pervious driveway surfaces where practicable in the coastal watershed areas to decrease the amount of runoff.

RECOMMENDED ACTION - # 3

1. The Town will review Town storm water structures to identify areas that could be remediated.

2. The Town will implement best management practices as outlined in the RI Soil Erosion and Sediment Control Handbook, 1989, as amended, for the construction of all new Town roads and all road upgrades.

3. The Town will pursue a public education program on use of low-maintenance grasses and landscaping, alternatives to pesticides, and decreased fertilizer use.

4. The Town will conduct a shoreline survey of the water bodies to identify any sources of contamination.

5. The Town will adopt a Soil Erosion and Sediment Control Ordinance that complies with the provisions of the applicable State enabling legislation.

6. The Town will continue to encourage DEM to develop and implement a comprehensive and effective wildlife management program to address uncontrolled waterfowl populations that are a major source of bacteria pollution to the salt ponds.

ISSUE - # 4 Underground and above ground storage tanks pose a threat to the quality of both ground and surface waters.

<u>d. Storage Tanks</u> - Underground and above ground storage tanks pose another threat to water quality. Leaks from both regulated tanks (large gasoline and oil) and unregulated tanks (small home heating fuel oil on residential property) are one of the most common causes of groundwater pollution (EPA 1986).

Underground storage tanks are presently regulated in the State under DEM's <u>Rules and</u> <u>Regulations for Underground Storage Facilities Use for Petroleum Products and Hazardous</u> <u>Materials</u>, August 2007 (Regulation # DEM-OWM-UST08-07).

The State's "Oil Pollution Regulations" (R.I.G.L., c. 46-12, 42-17.1, 42-35) regulate all above ground petroleum storage tanks with a capacity of at least five hundred (500) gallons. As such, most above ground residential oil storage tanks, which have a 300 gallon capacity, are not regulated.

GOAL - #4

To prevent the contamination of both ground and surface waters from leaking under ground and/or above ground storage tanks.

POLICY - #4

The Town will pursue a proactive program to minimize the contamination threat from leaking underground and above ground storage tanks.

RECOMMENDED ACTION - # 4

1. The Town shall consider adopting a Storage Tank Ordinance for underground and or above ground tanks not presently regulated by the RI DEM.

e. Discharge of Pollutants from Commercial and Recreational Boats – Research has clearly documented that the operation and maintenance of vessels can directly result in the release of pollutants into the marine environment.

ISSUE - # 5

The use of recreational and commercial boats can contribute to the degradation of the water quality. Contamination can occur from boat septage discharge, substances associated with boat operation and repair, and discarded refuse.

The US Environmental Protection Agency has determined that the discharge of marine sewage may degrade water quality by: 1) locally increasing biological oxygen demand (BOD); and, 2) increasing the microbial pathogens in the area (U.S. EPA, 1985). Since 1998 Rhode Island has

been designated as a "No Discharge" State by the USEPA. As such, only Type III MSD's can be used within Rhode Island.

Another problem associated with boat sewage is the chemicals used as disinfectant - chlorine and formaldehyde are examples. Chlorine can be toxic to marine life when it is discharged into shallow waters. However, research has shown that these chemicals should not pose a problem for treatment at municipal sewage treatment plants (Novak, et. al. 1990).

Other possible sources of contamination are gasoline and oil leaks, boat motors, boat repair operations, and anti-fouling boat paints, improper trash disposal, bilge water, and garbage (materials discarded from recreational and small commercial boats). Bilge water can contain oils and heavy metal contaminants. Fuel spills can occur in the water from leaking tanks, engines, and outboard. These pose a direct threat to water quality and can be a fire hazard. Garbage thrown overboard can contain many pollutants -- heavy metals, solvents, degreasers, and plastics are examples.

There are several federal laws that deal with these water issues. The MARPOL 73/78 is the international agreement that made it illegal to throw any plastics into the ocean within three miles of the shore. According to the MARPOL law, it is required that docks and marinas provide shore-based refuse facilities for the garbage of seagoing vessels. The Federal Water Pollution Control Act (1972 and as amended) regulates vessel sewage discharge. Section 312 of this Act outlines the requirements for marine sanitation devices (MSD's) on boats and enables states to apply to the US EPA for the authority to prohibit discharges of all vessel wastes, both treated and untreated. MSD's are holding tank or treatment and discharge systems and are classified by the US Coast Guard as: a) Type I MSD's-- for boats 65 feet or less in length with a discharge not to exceed fecal coliform levels of 1000 parts per 100 milliliters with no visible solids; b) Type II MSD's - for boats over 65 feet with a discharge not to exceed fecal coliform levels of 200 parts per 100 milliliters; and c) Type III MSD's – no-discharge systems designed to prevent the discharge of any sewage (i.e. holding tanks).

Section 312(f)(3) of this Act allows states to apply to the EPA for designation of waters as nodischarge zones. Applicants must prove to the US EPA that "adequate and reasonably available" pump-out facilities exist for boaters. The US EPA Region I has recommended that a ratio of one pump-out facility per 300-600 boats with holding tanks (Type III MSD's) be demonstrated in the application. Region I also recommends that one pump-out station per 300 boats with holdings tanks be provided in transient harbors, while a minimum of one pump-out facility per 600 boats be provided in parking lot harbors.

The R.I. Department of Environmental Management requires a ratio of at least one (1) pump-out facility or mobile pump-out boat for every three hundred (300) boats docked or moored within the waters covered by the Harbor Management Plan. The Town must also ensure that additional pump-out services will be provided if the ratio of MSD-equipped boats at moorings and municipal slips exceeds the aforementioned 300:1 ratio in the future. A lower ratio of boats to pump-out facilities or pump-out boats may be required, or a slightly higher ratio may be allowed based on consideration of appropriate factors such as: accessibility of the pump-out facilities; degree of overnight use; and, a situation involving multiple jurisdictions within the water body.

GOALS - # 5

To substantially decrease the amount of contamination from commercial and recreational boats.
 To maintain the quality of shellfish beds, fishing waters, and wildlife habitat, and areas for body contact recreation.

POLICIES - # 5

1. The Town will work with neighboring towns to mitigate the contamination from boats.

2. The Town will support a public education program on proper disposal of marine sewage, trash, and boat repair materials.

3. The Town will regulate the number and location of moored boats in compliance with State and Federal regulations to maintain the quality of the water and shellfish beds.

RECOMMENDED ACTION - # 5

 The Town will review the Zoning Ordinance to require the provision of proper sanitation facilities at new or expanded recreational boating facilities, marina, and other waterfront developments as appropriate. The Town will coordinate any revisions and plans with the appropriate State agencies.
 The Boats and Waterways Ordinance should be amended to require that pump-outs be operational and maintained at all times.

3. The Town will work with marina owners to develop and to implement a public education program to inform users about pump-outs and ways in which they can help maintain a clean water resource.
4. All marinas will be encouraged to provide toilet facilities, oil disposal drums, and adequate trash containers, wherever possible.

5. All marinas will be encouraged to participate in the CRMC Clean Marina Program and develop operating and maintenance plans.

6. The Town will work with marina owners to educate boat owners and boat yards about the advances in less toxic anti-fouling boat paints and boat supplies (i. e. nontoxic teflon bottom paint) and about proper boat painting practices (properly disposing of old paint and storing of painting materials) and toxic materials related to boat repair and general maintenance. Marinas will be encouraged to stock environmentally safe boat cleaners.

7. The Town will work with marina owners to educate boaters about minimizing the impact of bilge water through: a) proper use and disposal of oil absorbing pads; b) use of oil catch basins under engines and machinery; and, c) preventive maintenance to limit leaks.

8. The Town will investigate the availability of floating booms for marina operators and fire departments in South Kingstown and neighboring towns to deal with any fuel spill.

9. The Town will enforce anti-litter regulations and fine offenders.

10. The Town will inventory the trash disposal facilities to ensure that they are properly located and in sufficient number to serve the number of recreational and commercial boats using the waters.

11. All people who use motorboats or sailboats as residences will contact the Harbormaster within thirty-six (36) hours of mooring to receive critical review to ensure compliance with harbor regulations regarding pollution as outlined in Section 4 - 9 of the current South Kingstown Boats and Watercraft Ordinance: The owners or operators of all vessels operated, moored, or anchored within the waters and the jurisdiction of the Harbormaster will not permit acts contrary to the public

health or sanitary regulations including such laws, ordinances, rules and regulations as will be promulgated by federal, state, or local body in authority. Furthermore:

a) No rubbish, debris, garbage, untreated sewage, dead fish or other offal will be discharged upon or into the waters under jurisdiction of the Harbormaster.

b) No petroleum products or hazardous waste will be dumped or pumped onto or into the waters under the jurisdiction of the Harbormaster.

12. The Town will develop strategies to restrict boating where significant shallow water habitats are identified. Such plans are intended to decrease turbidity and physical destruction associated with boating activities.

13. The Harbor Master will enforce RIGL 46-12:39-41 that addresses 'No Discharge' designation

ISSUE - # 6

Point sources of pollution pose a serious water quality threat to tidal waters.

At this time, RI DEM prohibits direct discharge into waters classified as SA (see section 5.F.). There are several point discharges into the salt ponds, which are mainly from storm water pipes from both Town and State roads.

GOAL - # 6

To ensure that there are no point discharges into class SA waters.

POLICY - # 6

The Town will work with the State to preserve the water quality of the coastal waters.

RECOMMENDED ACTION - # 6

1. The Town will conduct a shoreline survey to identify any non-permitted discharges in the coastal waters.

2. The Town will work with the State to upgrade any existing Town and State point discharge areas.

3. The Town will require, where feasible, the retrofitting of all Town road projects with best management practices when construction and renovation projects are undertaken.

ISSUE - # 7

As a coastal community, South Kingstown will continue to experience commercial and residential development pressures. Uncontrolled development can significantly contribute to degradation of the Town's natural resources.

Increased commercial and residential development poses a direct threat to the water quality as it increases the contamination from septic systems, road runoff, erosion and sedimentation, and storm water runoff (see Section 6.A). It also threatens to destroy the tidal wetlands that serve such key functions as pollution abatement, wildlife habitat, oxygen and biomass production, erosion and sediment control, recreation, and aesthetic value.

GOALS - # 7

1. To pursue a controlled (i.e. "smart growth") future development strategy.

2. To protect as much critical land as possible through acquisition, purchase of development rights, easements, and other strategies.

3. To preserve the character of the waterfront. All future waterfront development or expansion should take place in those areas already designated for commercial waterfront use.

POLICIES - #7

1. The Town will use available regulatory tools to ensure future development occurs in a sound land use management manner to preserve the character of the waterfront.

2. The Town will work with various conservation organizations to implement protection strategies for the undeveloped land.

3. The Town will work with neighboring towns to protect lands in shared watersheds.

4. The Town will continue to work with RI CRMC to coordinate the review process for development within the Special Areas Management Areas for both the salt ponds and the Narrow River through a joint Memorandum of Understanding.

5. The Town will continue efforts to coordinate zoning (i.e. residential lot sizes) with CRMC to optimize agreement between local and State land use classifications.

6. The Town will work with CRMC in development of the Ocean SAMP to ensure all stakeholder concerns are considered and addressed to the degree practicable.

RECOMMENDED ACTION - #7

1. The Town will identify parcels of land for which acquisition, purchase of development rights, or other protection strategies are appropriate.

2. The Town will prioritize parcels of land targeted for protection strategies.

3. The Town will develop a plan, in concert with the Open Space Partnership Group (i.e. SKLT, USF&WS, DEM, TNC) for implementing the land protection strategies.

4. The Town will evaluate its current zoning and land development standards to ensure responsible development.

5. The Town will require 75 foot vegetated buffer between any water body and construction in lots where it is practical.

6. The Town will require that all new development in proximity to water bodies use low flow water devices and recommend that in non-sewered areas garbage disposal units not be installed.

7. The Town will refer major land development project proposals within the Narrow River SAMP and the Salt Pond Region SAMP to the Conservation Commission and the Waterfront Advisory Committee for their review to ensure the proposals are compatible with the goals and policies of the Harbor Management Plan.

8. The Town will continue its participation in the Open Space Partnership efforts to identify, preserve and protect valuable property through acquisition or other land use strategies.

9. The Town will continue its participation as a primary stakeholder in the Ocean SAMP development process.

C. MOORING MANAGEMENT

ISSUE - # 8

Moorings need to be licensed and regulated to ensure the safety of the people using the waters and to protect the health of the ecosystems found within and around these waters.

The number, location, specifications, and regulation of moorings are important concerns as they directly impact: a) the safety of people using the waters; b) the diversity of potential water uses; and, c) the health of the waters. The RI DEM Division of Water Resources is charged with classifying the waters according to the guidelines of the National Shellfish Sanitation Program (NSSP), as adopted by the Interstate Shellfish Sanitation Conference (ISSC), with respect to the harvesting of shellfish. The classifications of areas in marinas as well as in adjacent safety zones are as follows: prohibited, restricted, conditionally restricted or conditionally approved. The number and location of moorings directly affects the classification of shellfish areas.

The majority of the South Kingstown mooring fields are located within SA waters. These waters provide prime habitat for shellfish and applicable R.I. Water Quality Regulations specifically identify shellfish harvesting as a designated use within SA waters. The Town of South Kingstown is compliant with those DEM statutes. The Town has no rules, regulations or policies that prohibit shellfish harvesting within any SA waters, including those SA waters within which municipal mooring fields are located.

The Town recognizes that FDA/ISSC regulations indicate that mooring fields represent a potential threat for shellfish contamination and in some cases warrant restrictions on shellfish harvesting. This is especially pertinent to those mooring fields where transient (i.e. over night) vessels are permitted. Under the Town Boats and Waterways Ordinance (Sec. 4-18) no transient vessel anchoring is permitted within the existing nine (9) permanent mooring fields.

Potential pollution from vessels poses a threat to those important shellfish resources located within the town mooring fields. Those various sources of pollution are addressed within this Plan and include human waste, garbage/debris and petroleum products. The Town Boats and Waterways Ordinance (Sec. 4-9) states that vessel operators shall not *"Permit acts contrary to the public health or sanitary regulations including such laws, ordinances, rules and regulations as shall be promulgated by federal, state or local body in authority;"*

Discharge of raw sewage is of particular concern regarding contamination of shellfish. There are four sanitary pump-out facilities within South Kingstown waters. Facilities at the Ram Point Marina and Stone Cove Marina (located in upper Pt. Judith Pond) are open and free to the public. Both Point View Marina and Pt. Judith Marina (located in Snug Harbor) have privately operated pump-out facilities that are available to the general public on a fee basis.

The State uses the ISSC formula to determine the density and number of boats allowed in a water body. Factors such as dilution of the water body, quantity of waste, and number of people contributing waste are used to determine the allowable number of boats. A municipality has the option of conducting its own survey, to show that the assumption of 100 percent boat occupancy is

not appropriate. However, this would not be necessary if there were one pump-out facility provided for every 300 boats, refer to Section 5.A.1 for a discussion of moorings.

GOALS - # 8

 To protect and to improve the water quality and to ensure boating safety by locating mooring fields in a manner which: a) meets the Interstate Shellfish Sanitation Commission standards; and b) best meets the many uses of the waterway and which protects vital resources;

2. To implement a mooring ordinance and licensing plan for all South Kingstown tidal waters.

POLICIES - # 8

1. The Town will work with neighboring towns to establish consistent policies on moorings, specifications, and enforcement;

2. The Town will regulate moorings in all South Kingstown tidal waters.

3. The Town supports the Army Corps of Engineers mooring policy of "open to all on an equal basis" regarding mooring allocations within federal anchorages.

4. To ensure that mooring fields are sited so as to not interfere with access to designated shellfish management areas, traditional fishing grounds (as defined by CRMC), public recreational areas and conservation areas.

5. To ensure that mooring fields are not sited where they may cause significant adverse impacts to shellfish resources, wetlands, submerged aquatic vegetation and/or important aquatic habitats.

RECOMMENDED ACTION - # 8

1. The Town will work with neighboring towns, that share the same waters, to develop a mooring plan that is consistent and enforceable;

2. The Town will license and collect fees for all moorings in South Kingstown tidal waters;

3. All moorings will be placed in a formally designated mooring area, except for those permitted to waterfront property owners who will be allowed one mooring in reasonable proximity to their property in accordance with the regulations of the Town ordinance. In addition, waterfront property owners will be required to license such moorings with the Town; and

4. All Town ordinances pertaining to moorings will be set by the Town Council, with recommendations from the Waterfront Advisory Commission.

5. Amend the Boats and Waterways Ordinance (Town Code, Chapter 4) to require that all vessels, when moored, remain within the perimeter boundary of mooring fields at all times.

6. Ensure that mooring fields are not sited so as to interfere with free/unobstructed use of channels, fairways and/or shore side facilities.

7. Establish, where feasible, a fifty foot (50') setback from all residential docks, piers, floats, public launching ramps and federal navigation projects. Ensure that setbacks from riparian moorings and shoreline rights-of-way are sufficient for ingress/egress and so as to prevent interference with the exercise of private or public rights.

8. Ensure that mooring areas are setback three (3) times the Army Corps of Engineers authorized project depth from federal navigation projects.

9. Continue to support the position that the Town acknowledges the ACOE policy prohibiting commercial moorings within federal anchorages. The Town should implement this federal policy where applicable.

10. When considering and/or assessing the feasibility of all new or significantly expanding mooring areas the Town shall ensure that the project is located so as to ensure that tides and currents aid in flushing to those new or expanded mooring areas.

11. Ensure that all new or significantly expanding mooring areas do not cause adverse impacts to water quality.

12. Amend the Boats and Waterways Ordinance to include language prohibiting swimming within mooring areas.

D. STORM PREPAREDNESS

ISSUE – # 9

The Town, being a coastal community, needs to plan for significant storm events, including nor 'easters, tropical storms and the inevitable hurricane.

As a coastal community, South Kingstown is particularly vulnerable to natural disasters. Since 1635 the Town has been impacted by no less than seventy one (71) hurricanes of varying severity. In recent time the Hurricane of 1938 and Hurricane Carol (1954) caused loss of human lives, along with significant property loss and damage/alteration to natural resources.

The Rhode Island Coastal Resources Management Council has developed a document entitled, "Rhode Island's Salt Pond Region: A Post Hurricane Recovery and Mitigation Plan," November 1987. Also, the Town has a natural hazard mitigation plan, titled <u>Multi-Hazard Mitigation Strategy</u> <u>Plan - Strategies for Reducing Risks from Natural Hazards in South Kingstown, Rhode Island,</u> November 2005 (revised March 2006; June 2010). The original plan and first revision have been reviewed and approved by the Rhode Island Emergency Management Agency and the Federal Emergency Management Agency of the U.S. Department of Homeland Security. The most recent revision will be reviewed by RIEMA and FEMA with an anticipated approval in 2010. In addition, a local Storm Preparedness Plan has been drafted and is inclusive with the Town's Harbor Management Plan (see Appendix H).

GOAL - # 9

To be prepared to respond to a hurricane by implementing the recommendations of the RI CRMC Hurricane Recovery and Mitigation Plan, local Storm Preparedness Plan, and the Local Hazard Mitigation Strategy Plan.

POLICY - # 9

The Town will work toward developing policies that will allow for the implementation of the CRMC Salt Pond Region Post Hurricane Recovery and Mitigation Plan, the Storm Preparedness Plan and the Local Hazard Mitigation Strategy Plan and that are consistent with the Town Comprehensive Plan.
RECOMMENDED ACTION - # 9

1. The Town will review the RI CRMC Plan to determine what land use and other regulatory changes need to be made for compliance with the Plan.

2. The Town will review the RI CRMC Plan to determine what non-regulatory measures can be implemented for compliance with the Plan.

3. The Town will implement mitigation measures outlined in the Local Hazard Mitigation Strategy Plan.

4. The Town will implement measures identified in the local Storm Preparedness Plan.

5. The Town will work with RIEMA and CRMC in development of a post storm Debris Management Plan.

E. RECREATIONAL AND COMMERCIAL FISHING

ISSUE - # 10

The fin and shellfish species that live and spawn in the tidal waters are threatened by the degradation of the water quality and related adverse ecological impacts.

Rhode Island residents and visitors to the salt ponds have come to view recreational shellfishing as an integral part of the quality of life associated with living near the ponds. Reaping the harvest of the free and common fisheries is a fundamental right of the State Constitution. The annual opening day of scallop season was, in past years, an exciting family event where Rhode Islanders from all walks of life would grab a dip net or a scallop dredge and descend on the ponds in droves to reap their share. Unfortunately, because of over fishing and the degradation of water quality, the recreational fisherman may fear illness from the shellfish and must spend much more time to catch it.

Specifics on commercial and recreational fishing are given in Section 3.E.

The fin and shellfish stocks of Rhode Island salt ponds have been in a state of decline for several decades, although the actual degree of decline is difficult to document because there are almost no records of annual harvests. The causes of the fin and shellfish decline are many, but at this time there is insufficient data to pinpoint the major threats to the resource.

1) Eutrophication is accelerated by nutrient, most notably nitrogen, loading in a salt pond or estuary (see Section 6. A). An increase in the nitrogen causes an increase in the growth of both algae and larger plants in the ponds. These subsequently die, fall to the bottom, and decay causing an accumulation of soft, organic sediments on the pond bottom. Oysters and flounder require hard, gravel bottom for spawning. The increase of plant and animal material decaying on the pond bottom also depletes the oxygen supply, damaging both fin and shellfish stocks, especially in the summer. Data gathered annually since 1985 by the Salt Pond Watchers, a volunteer citizen monitoring program, indicates a continuing rise in the nutrient and fecal coliform levels in Green Hill Pond.

2) Pathogenic contamination, specifically high fecal coliform counts, has caused the closure of shellfishing areas in the entire Green Hill Pond, portions of Potter Pond and Pt. Judith Pond and all of the Narrow River. Sources of pathogenic contamination include wildlife (i.e. geese,

swans), septic systems, marine sewage disposal systems, and storm water runoff. Currently, all of the major mooring and marina areas are closed to shellfishing due to bacterial contamination. The United States Food and Drug Administration's Interstate Shellfish Sanitation Commission (ISSC) has regulations which require the closure of all areas with a certain density of docks and moorings.

3) The State needs to continue its present statutes and regulations for commercial fisheries that prohibit use of certain fishing methods within the salt ponds and adjacent waters. These include a prohibition on beam, pair and otter trawls, along with seines and fyke nets. At present State statutes prohibit use of those aforementioned devices within the salt ponds, the Narrow River and the related channels.

4) As noted in section 4.D, winter flounder use the shallow areas of the salt ponds for spawning. Crawford, 1989, used a computer simulation model to predict the retention time of flounder larva in the northern section of Point Judith Pond. It was concluded that the larvae hatched in this section would most likely remain there, able to develop as young flounder in a habitat conducive to their growth. It is, therefore, assumed that the shallow areas protected from tidal flushing are important to maintaining a flounder population. Additional study by Crawford showed that flounder not only appear to return to the same pond each year, but that they return to the same area of the pond. Hence, any disturbance of this area, whether through dredging activities, scallop dredging, or any construction projects has the potential to destroy the flounder eggs. This could occur because the area was disturbed during the critical spawning time or because the optimal depth of the area was changed due to dredging or filling.

GOALS - # 10

1. To protect and to preserve the spawning grounds of winter flounder, shellfish, and other fish species that utilize these habitats.

2. To protect and to preserve the habitats used by a variety of fin and shellfish in various life stages.

3. To protect the commercial and recreational fishing interests in the salt ponds.

4. To mitigate the contamination problems in both the Narrow River and the salt ponds which have resulted in closure to fishing.

POLICY - # 10

The Town will take both the proactive and remedial measures within its authority to protect and to preserve the habitats of the fin and shellfish found in the salt ponds and Narrow River.

RECOMMENDED ACTION - # 10

1. The Town will support the State's marine fisheries management programs, which include such issues as: documenting spawning and nursery areas; increasing enforcement efforts; establishing spawning areas for shellfish and fin fish; and, defining designated conservation areas.

 The Town will discourage any dredging operations that would adversely alter the circulation patterns within the salt ponds of the spawning and nursery areas for winter flounder and shell fish.
 The Town will identify conflicting activities.

4. The Town will support shellfish reseeding efforts and aquaculture operations that are consistent with the use priorities established by the Town.

5. The Town will support the transplant of shellfish from closed (polluted) waters, an action which requires the closure of the receiving beds for several months and close monitoring and enforcement by RI DEM to ensure that the transplants are not reopened prematurely.

6. The Town will encourage the State to study the effects of fyke nets on the winter flounder population.

7. The Town will coordinate with the State to balance the scallop dredging activities with protection of the winter flounder spawning areas.

8. The Town shall establish zones in which certain activities are permitted (i.e. recreational fishing, water skiing), as necessary.

9. Mooring fields shall not be sited so as to substantially interfere with access to designated shellfish management areas and/or traditional fishing grounds, as defined by CRMC.

10. Mooring fields shall not be sited so as to substantially interfere with access to designated conservation areas.

11. Mooring fields shall not be sited where they may cause significant adverse impacts to: wetlands; shellfish resources; submerged aquatic vegetation; and/or other important aquatic habitats.

F. RECREATIONAL FACILITIES

ISSUE - # 11

There is a need for an increase in the number of public facilities available in the Town.

There is a need for expanded recreational facilities. Specifically, private and public restrooms, picnic tables and trash receptacles should be added in certain areas. Currently the Town has two shore side public recreational areas: Marina Park and the South Kingstown Town Beach in Matunuck. Green Hill Pond and Narrow River are not used by larger recreational boats, but there is a significant amount of recreational use on these water bodies. There currently are no coastal public recreational areas for either area.

GOAL - # 11

To provide residents and tourists with comfortable facilities for use near the water.

POLICY - # 11

The Town will establish and maintain public restrooms, picnic facilities, and trash receptacles where feasible in Town (e.g. Marina Park).

RECOMMENDED ACTION - # 11

1. The Town will identify the areas in South Kingstown that can support these expanded services.

2. The Town will prioritize the areas for development and expansion of services.

3. The Town will investigate funding sources for development of the facilities.

4. The Town will develop a maintenance plan and identify the Town department responsible for maintenance.

5. Ensure that mooring fields are not sited to substantially interfere with access to public recreational areas.

G. BOATING SAFETY

ISSUE - # 12

Because of the diversity of uses and the increase in the numbers of people on the water, the speed at which boats travel has become a significant safety concern.

Each year the number of people using the waters for recreation and commercial purposes (i.e. boating) increases. With this increase comes a number of safety concerns.

GOAL - # 12

To promote safety in the waters by adopting and enforcing existing speed limits for boats and personal water crafts (jet skis etc.).

POLICIES - # 12

1. The Town will maintain posted speed signs/buoys in zones of safety concern from June 1 to October 1 of each year.

2. The Town will enforce the posted speed limits.

3. The Town will evaluate designated zones as needed in order to make recommendations on changes or possible expansions of the zones.

RECOMMENDED ACTION - # 12

1. The Town will work with neighboring towns to establish a uniform speed limit for shared waters.

2. The Harbormaster will place buoys/signs stating the restrictions outlined below so that they are clearly visible to those operating vessels within the waters where the restrictions apply. Such signs will be maintained in place from June 1 to October 1.

3. The Town will designate that no vessel will be operated in excess of five (5) miles per hour or create a wake in the area from Can #9 north to Can # 14 in Point Judith Pond, from Memorial Day through October 1 of each year.

4. The Town will designate a 5 mph speed limit in Green Hill Pond in the channel between Charlestown Bridge to approximately 1/4 mile east (north of Sagebed Island).

5. In Narrow River, a 5 mph speed limit will be designated from Mitchell Drive to four hundred (400) feet north of Radial Drive.

6. The Harbormaster will determine the appropriate speed limits for Potter Pond to protect appropriately marked channels (i. e. in Seaweed Cove).

7. The Town will develop the procedure for evaluation of the zones as deemed necessary by the Town. Special attention should be given to channels and areas adjacent to mooring fields as defined in the Harbor Management Plan.

8. The Town will work with neighboring towns to develop and to enforce the plan.

9. The Town will provide adequate enforcement personnel. This will include coordinating enforcement with neighboring towns.

10. The Town will adopt measures to restrict boating where significant shallow water habitats are identified, for the purpose of decreasing turbidity and physical destruction to those habitats from boating activities.

ISSUE - # 13

There is a serious safety issue that stems from the diversity of water activities as well as the increase in the numbers of people using the area. Such activities as swimming, windsurfing, fishing, aquaculture, water skiing, jet skiing, sailing, and speed boat racing can pose safety problems when pursued in an unregulated and random manner.

GOAL - # 13

To ensure the safety of people using the waters for recreational and commercial uses.

POLICIES - # 13

1. The Town will maintain an established list of areas for prohibited activities.

2. The Town will review and amend the list as deemed necessary.

3. The Town will ensure that water use activities are done in a manner that is compatible with the safety of all water users.

RECOMMENDED ACTION - # 13

1. The Town will work with neighboring towns to establish consistent policies for shared waters.

2. The Town will identify the zones and/or times in which certain activities are prohibited.

- 3. The Town will establish a method of enforcement to include:
 - a) the method in which the public will be notified of the policies; and,
 - b) the procedure of enforcement and a schedule of fines.

4. The Town will support the efforts of the State, the United States Coast Guard Auxiliary, and other appropriate agencies/individuals to hold public workshops and courses in boating safety.

5. The Town will develop educational materials (to include pamphlets and signs) to be distributed to the general public, marinas, and boat operators.

H. Finance and Enforcement

ISSUE - # 14

Enforcement is paramount to the implementation of a successful program. Rules and regulations concerning safety, marine sewage disposal, moorings, and other harbor management issues must be enforced in a consistent and effective manner. In order to achieve this level of enforcement, adequate financing for the program must exist.

GOALS - # 14

1. To enforce the adopted Harbor Management Plan in a consistent manner.

2. To employ a Harbormaster to administer the harbor management program.

3. To continue to finance the enforcement of the Boats and Waterways Ordinance and overall management effort through available municipal funds.

POLICIES - # 14

1. The Town will enforce the Harbor Management Plan in all South Kingstown tidal waters.

2. The Town will work with neighboring towns to develop a system of financing a Harbormaster for joint waters.

3. The Harbormaster will have completed an appropriate Harbormaster training program.

4. The duties and responsibilities of the Harbormaster will be outlined clearly in the Boats and Waterways Ordinance.

RECOMMENDED ACTION - # 14

1. The Town will review the cost and benefits of user fees for parking and ramp use at Marina Park.

2. The Town will register and assess fees for all moorings in South Kingstown waters.

3. The Town will define, and amend as needed, the duties and responsibilities of the Harbormaster in the Harbor Ordinance. Such duties as implementing the HMP, preparing budgets, obtaining funding sources for enforcement, overseeing mooring registrations and regulations, and public outreach will be included.

4. The Harbormaster's specific authority will be defined clearly in the Boats and Waterways Ordinance, and will be amended as needed.

5. The Harbormaster will be provided with the equipment and office space necessary to carry out the duties of the job.

6. The Town should annually re-assess mooring fee rates and set revised rates where warranted.

7. Research grant funding opportunities to finance the harbor management program.

I. Dredging

ISSUE - # 15

Some channels need to be dredged to ensure they remain safe, navigable waterways. When dredging action is involved, the short and long term impacts to the ecology of the area must be assessed.

The history of dredging in the ponds is discussed in Section 2.C. Safe and reliable access to the ponds is important to the ponds' many uses. Some issues which are raised when dredging is considered are financing, safe disposal of the dredged materials, and the subsequent changes to the water bodies. Increased flushing causes changes in such factors as the salinity, circulation patterns, temperature, predators, and patterns of deposition in the ponds. This has a direct impact on the current biological resources in the pond. However, both historically and economically, the commercial fishing industry has a significant impact on the coastal communities. Town support for the industry should be through the maintenance and dredging of existing channels and increasing the depth from Jerusalem to High Point. With present conditions, deep draft vessels cannot navigate to the commercial boatyard except at flood tides.

GOALS - # 15

1. To provide safe commercial and recreation access to Point Judith Pond; and

2. To maintain the habitat necessary for the fish and shellfish currently using the ponds for various life stages.

POLICIES - # 15

1. The Town will maintain safe and adequate channels for navigation for both commercial and recreational boating.

2. The Town will consider impacts of dredging on existing and future ecological resources, including fisheries, in conjunction with its support of dredging initiatives.

RECOMMENDED ACTION - # 14

1. The Town will support the dredging of the channel from the State Pier in Jerusalem to High Point to a depth of 15 feet and a width of 150 feet; and

2. The Town will support maintenance of the dredging to continue the channel to Wakefield to ensure a six foot depth and 100 foot width.

J. Dune Maintenance and Restoration

ISSUE - # 16

The maintenance of a healthy dune system is critical to perpetuating the beaches and the related ecosystems that exist behind them.

GOAL - # 16

To protect and to restore the dune systems which exist within the Town.

POLICY - # 16

The Town will work toward the protection and restoration of dune systems within the Town.

RECOMMENDED ACTION - # 16

1. The Town will develop a dune restoration/protection plan in coordination with CRMC.

2. The Town will work with the State and Federal government to identify areas that need restoration or protection.

3. The Town will provide assistance, where available, to ensure the protection of these resources.

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APPENDIX A

Management Responsibilities

Following is a brief description of the various governmental management responsibilities within the tidal areas of the State of Rhode Island.

1. Federal Role

a. The United States Army Corps of Engineers

The Army Corps of Engineers (ACOE) has authority over the placement of structures in the navigable waters of the United States. The ACOE reviews and permits such projects as dredging, filling, and the placement of structures (e.g. moorings). Moorings are regulated as the ACOE pursues its mandate of ensuring equal opportunity in navigation and commerce within the waters of the country. The public interest review often requires that the availability of moorings be non-exclusionary and that transient vessels be included. It also requires that non-residents be provided the opportunity to obtain mooring space and that some mooring space be made available to transient boaters.

b. United States Environmental Protection Agency

This agency is responsible for establishing water quality criteria and approving all discharges for all state waters.

c. United States Food and Drug Administration

The Food and Drug Administration (FDA) has the charge of setting the water quality classification criteria which is used by the Rhode Island Department of Environmental Management in determining safe shellfish water quality standards.

2. State Role

The State of Rhode Island maintains jurisdiction over submerged lands and tidal water of the State. The Rhode Island Department of Environmental Management (RIDEM) and the Rhode Island Coastal Resources Management Council (CRMC) are the two State agencies which administer coastal regulations.

a. Rhode Island Coastal Resources Management Council

The CRMC is responsible for both planning and regulatory functions. In 1978 (revised in 1983) the Coastal Resources Management Program was established. It designates six different water types with attendant goals, policies, and regulatory standards for each. The classification is determined by shoreline characteristics, current water use, and assessing the role of an area in the Statewide plan.

The CRMC also functions as a binding arbitrator in disputes involving coastal resources and interest of towns or more municipalities and state agencies. The CRMC also coordinates actions with local, State, regional and federal agencies and private interests.

b. Rhode Island Department of Environmental Management (DEM)

The DEM is the lead agency in implementing the requirements of the Federal Clean Water Act, for managing the resources in the State's waters, and for coordinating federal and state land acquisition and open space programs. The State has developed specific regulations and standards for protecting water quality.

The DEM has issued six different water classifications and standards for the waters of the State. These are designed to protect and to improve water quality. The regulations state that a proposed activity cannot result in a degradation of the water quality.

The fish and shellfisheries within the State are overseen by the DEM Division of Fish and Wildlife and the Marine Fisheries Council. Current programs include the regulation of commercial fisheries, shellfish propagation and transplanting, and establishment and protection of shellfish management areas.

3. Local Role

Municipalities are empowered by Chapter 4 of Title 46 of the General Laws of Rhode Island to certain regulatory powers over their public waters.

Such powers include: 1) management of vessel operation within the harbors; 2) management of anchorages and moorings; 3) regulation of such activities as water-skiing, skin diving, regattas, and marine parades; 4) management of shore side resources potentially impacting municipal marine waters.

Within municipal marine water bodies the Harbormaster has authorities and responsibilities as detailed in the Town Boats and Waterways Ordinance (Article II. Harbormaster). As stated in the Ordinance (Sec. 4-33) *"The harbormaster shall have the full power of state and local laws and authority within the jurisdiction fixed by law to enforce regulations and give directions regarding anchorage, management and control of all vessels within the waters of the town."*

Specific authority, duties and responsibilities of the Town of South Kingstown Harbormaster include:

- 1. Removal of vessels (for cause) from any public wharf;
- 2. Assign all moorings and designate locations (in coordination with Waterfront Advisory Committee);
- 3. Keep a detailed description of each mooring;
- 4. Maintain mooring assignment waiting lists, and;

5. Post and maintain on or adjacent to all town floats, docks and launching site an adequate digest of those sections of the Ordinance relating to operation of vessels

APPENDIX B

Coastal Fish Inventory

Ranking by abundance of all finfish species collected in Green Hill Pond, R.I. (January, 1990-December, 1990)

SPECIES (Common Name) NUMBER MENIDIA SP. (Atlantic silverside) 509 TRINECTES MACULATUS (Hogchoker) 334 BREVOORTIA TYRANNUS (Atlantic Menhaden, Pogy) 237 APELTES QUADRACUS (Fourspine Stickleback) 196 FUNDULUS HETEROCLITUS (Striped Killifish) 188 PSEUDOPLEURONECTES AMERICANUS (Winter Flounder, Blackback) 124 MORONE AMERICANA (White Perch) 123 POMATOMUS SALTATRIX (Bluefish) 110 ALOSA PSEUDOHARENGUS (Alewife) 106 CLUPEA HARENGUS HARENGUS (Atlantic/Sea Herring) 62 CYPRINODON VARIEGATUS (Sheepshead Minnow) 36 ANGUILLA ROSTRATA (American Eel) 28 SYNGNATHUS FUSCUS(Northern Pipefish) 26 GASTEROSTEUS ACULEATUS (Threespine Stickleback) 22 MORONE SAXATILIS (White Perch) 21 GOBIOSOMA BOSCI (Naked Goby) 20 CARANX HIPPOS (Crevalle Jack) 17 FUNDULUS MAJALIS (Mummichog) 14 LEIOSTOMUS XANTHURUS (Spot) 14 MICROGADUS TOMCOD (Atlantic Tomcod) 14 ANCHOA MITCHILLI (Bay Anchovy) 12 OPSANUS TAU (Oyster toadfish) 11 TAUTOGA ONITIS (Tautog, Blackfish) 10 PEPRILUS TRIACANTHUS (Butterfish) 7 ALOSA AESTIVALIS (Blueback Herring) 5 CARANX CRYSOS (Blue Runner) 4 PARALICHTHYS DENTATUS (Summer Flounder) 3 MONACANTHUS CILIATUS (Planehead Filefish) 1 PRIONOTUS EVOLANS (Striped Searobin) 1 SELENE VOMER (Lookdown) 1 SERIOLA ZONATA (Banded Rudderfish) 1 SPHOEROIDES MACULATUS (Northern Puffer) 1 STENOTOMUS CHRYSOPS (Scup) 1 STRONGYLURA MARINA (Silver Gar) 1 TRACHURUS LATHAMI (Saurel, Rough Scad) 1

From: RI DEM Fish and Wildlife Project F-51-R-2 Survey of Eighteen Tidal Rivers, Coastal Ponds, and Embayments in RI, 1990 Listed below are seventy-six species of fish that have been found within Rhode Island's coastal ponds during some stage of their life cycles. This list was compiled from Bigelow and Schroeder (1953), Gordon (1960), and Stolgitis et al. (1976).

Odontaspis taurus - Sand Tiger Shark Mustelus canis - Smooth Dogfish Anguilla rostrata - American Eel Alosa aestivalis - Blueback Herring Alosa pseudoharengus - Alewife Brevootia tyrannus - Atlantic Menhaden Clupea harengus harengus - Atlantic Herring Sardinella anchovia - Spanish Sardine Anchoa mitchilli - Bay anchovy Osmerus Mordax – American Smelt Opsanus tau - Oyster Toadfish Enchelyopus cimbrius - Four-bearded Rockling Gadus morhua - Atlantic Cod Microgadus tomcod - Tomcod Pollachius virens - Pollock Urophycis chuss - Red Hake Urophycis tenuis - White Hake Strongylura marina - Atlantic Needlefish Cyprinodon variegatus - Sheepshead Minnow Fundulus heteroclitus- Mummichog Fundulus majalis - Striped Killifish Menidia beryllina - Tidewater Silverside Menidia menidia - Atlantic Silverside Apeltes quadracus - Four-spined Stickleback *Gasterosteus aculeatus* - Three-spined Stickleback Gasterosteus wheatlandi - Blackspotted Stickleback Pungitius pungitius - Nine-spined Stickleback Fistularia tabacaria - Bluespotted Coronetfish Hippocampus hudsonius - Sea horse Syngnathus fuscus - Northern Pipefish *Morone americana* - White Perch Morone saxatilis - Striped Bass Centropristis striata - Black Sea Bass Lepomis macrochirus - Bluegill Sunfish Pristigenys alta - Short Big-eye Pomatomus saltatrix - Bluefish Caranx crysos - Blue Runner Filefish Naucrates ductor - Pilotfish Sphoeroides maculatus - Northern Puffer

Selar crumenophthalmus - Big-eye Scad Selene vomer - Lookdown Seriola zonata - Banded Rudderfish Trachurus lathami - Rough Scad Archosargus probatocephalus - Sheepshead Stenotomus chrysops - Scup Bairdiella chrysura - Silver Perch *Cynoscion regalis* - Squeteague) Leiostomus xanthurus - Spot Menticirrhus saxatilis - Northern Kingfish Mullus auratus - Red Goatfish Chaetodon ocellatus - Spotfin Butterflyfish Tautoga onitis - Tautog Tautogolabrus adspersus - Cunner Mugil cephalus - Striped Mullet Mugil curema - Silver Mullet Sphyraena borealis - Northern Sennet Ammodytes americanus - Sand Lance Pholis gunnellus - Rock Gunnel Gobiosoma bosci - Naked Goby Gobiosoma ginsburgi - Seaboard Goby Scomber scombrus - Atlantic Mackerel Peprilus triacanthus - Butterfish Prionotus carolinus - Northern Sea Robin Prionotus evolans - Striped Sea Robin Myoxocephalus aenaeus - Grubby Myoxocephalus octodecimspinosus -Longhorn Sculpin Cyclopterus lumpus - Lumpfish Dactylopterus volitans - Flying Gurnard Paralichthys dentatus - Summer Flounder Scophthalmus aquosus - Windowpane Pseudopleuronectes americanus - Winter Flounder Trinectes maculatus - Hogchoker Alutera schoepfii - Orange Filefish Balistes capriscus- Grey Triggerfish Monacanthus hispidus - Planehead filefish Caranx hippos - Crevalle Jack

APPENDIX C

Public Access Inventory

INVENTORY OF COASTAL PUBLIC ACCESS SITES (EXISTING AND POTENTIAL) LOCATED IN THE TOWN OF SOUTH KINGSTOWN

Two lists were developed. List A identifies legally established sites and List B contains those unverified sites that require additional research.

<u>List A</u>

List A identifies a total of 44 shore front parcels in the Town of South Kingstown that are either:

- * Owned by the Town, the State, or the Federal Government;
- * Platted and accepted as Town or State roads that extend to, or pass over, the mean high water mark of a tidal water area; or
- * Designated as Public Rights-of-Way to the shore by the RI Coastal Resources Management Council.

Of the 44 sites in List A:

- * 1 is Federal;
- * 12 are State (ten State owned shore front lots and two state roads);
- * 28 are Town (10 Town owned shore front lots and 18 Town roads); and
- * 3 (CRMC designated public rights-of-way) are not readily classifiable according to jurisdiction.

As public lands fronting the shore or public ways leading to the shore, all of these sites technically provide potential public shoreline access. However, in a practical sense, only some of the sites provide actual public shoreline access opportunities, given that some sites are considered unsuitable for general use by the public.

JURISDICTIONAL BREAKDOWN

Of the 44 sites in List A:

a) 24 sites currently appear to be well-suited for use as public access ways or overlooks. They are:

Federal			
Trustom National Wildlife Refuge	(No. 14)		
<u>State – Lots</u>			
East Matunuck State Beach Deep Hole Fishing Area Narrow River Boat Ramp & Fishing Area	(No. 21) (No. 25) (No. 39)	Ι	
Town - Lots			
Marina Park – Boat Ramp (II) & Overlook	(No. 4)	Ι	М

South Kingstown Town Beach Lot on South Side of Charlestown Beach Road West	(No. 26) (No. 35)		М	Ν
Town – Roads/Easements				
Marina Park – Boat Ramp (I)	(No. 3)	Ι	М	
Pond Street Boat Ramp	(No. 5)			Ν
Perrywinkle Road	(No. 6)	I	Μ	U
Gooseberry Road Boat Ramp	(No. 7)		Μ	Ν
Washington Street	(No. 10)	I		U
Lake Avenue	(No. 11)			U
Park Avenue	(No. 12)			U
Ocean Avenue	(No. 22)	I	Μ	Ν
Moonstone Beach Road	(No. 27)		Μ	
Green Hill Avenue	(No. 28)	I	Μ	Ν
Green Hill Beach Road	(No. 29)		Μ	Ν
John Street	(No. 37)	I		U
River Avenue	(No. 38)		Μ	U
Hahn Avenue	(No. 40)	I	Μ	U
Lafayette Avenue	(No. 41)		Μ	U
Middlebridge Bridge	(No. 42)		Μ	
Matunuck Beach Road	(No. 44)	Ι	М	U

- 1. Of these 24 sites, at least ten could use some improvement work. They are indicated with an "I."
- 2. Of these 24 sites, 14 need to be marked with shoreline public access signs The 14 sites that need to be marked are indicated above with an "M."
- 3. Of these 24 sites, six have no available parking; they are noted above with an "N." At eight other sites, it is unclear whether there is any available parking; they are indicated above with a "U."

b) 13 sites look to be currently unsuitable for use as public access ways or overlooks. They are:

<u>State</u>

Succotash Salt Marsh	(No. 8)	
Former Girl Scout Property (I)	(No. 16)	С
Former Girl Scout Property (II)	(No. 17)	
Lot at Intersection of Matunuck School House		
Road & Sandpiper Drive	(No. 20)	
Small Lot on Matunuck Point (I)	(No. 23)	С
Small Lot on Matunuck Point (II)	(No. 24)	С
Pettaquamcutt Cove	(No. 43)	С

Town (Parcels)

South Kingstown Public Services Bldg.	(No. 2)	С
Lot on North Side of Charlestown Beach Road West	(No. 15)	I
Green Hill Acres Marsh	(No. 18)	С
Lot on North Side of Twin Peninsula Avenue	(No. 19)	С

Town (Roads)

Hillcrest Road	(No. 1)	I
Atlantic Avenue	(No. 13)	С

- 1. Of these 13 sites, five could probably be rendered suitable for use as public access ways or overlooks if upgraded or developed. They are indicated above with an "I."
- 2. Of these 13 sites, the remaining eight should probably be protected as conservation areas, with no provisions for access. They are indicated above with a "C."
- c) Seven sites need to be further investigated to determine their status, location, and/or suitability for public use. They are:

Town (Parcels)	
Beach Lot (I)	(No. 33)
Beach Lot (II)	(No. 34)
State (Roads/Easements)	
Potter Pond Bridge	(No. 9)
Upper Bridge (Middlebridge)	(No. 36)
Dawn Drive	(No. 30)
Daybreak Drive	(No. 31)
Statice Drive	(No. 32)

GEOGRAPHICAL BREAKDOWN

Of the 44 sites in List A:

a) 24 sites currently appear to be well-suited for use as public access ways or overlooks. They are listed below. (Note: Trustom National Wildlife Refuge and Moonstone Beach Road both lead to or border more than water area, and they are therefore listed more than once.)

Point Judith Pond

Marina Park - Boat Ramp (I) Marina Park - Boat Ramp (II) & Overlook Pond Street Boat Ramp Perrywinkle Road Gooseberry Road Boat Ramp	(No. 3) (No. 4) (No. 5) (No. 6) (No. 7)	 	M M M M	N U N
Potter Pond				
Washington Street Lake Avenue Park Avenue	(No. 10) (No. 11) (No. 12)	Ι		U U U
Card Pond				
Trustom National Wildlife Refuge Moonstone Beach Road	(No. 14) (No. 27)			
Trustom Pond				
Trustom National Wildlife Refuge	(No. 14)			
Oceanfront - East Matunuck Area				
East Matunuck State Beach	(No. 21)			
Oceanfront - Matunuck Area				
Ocean Avenue Deep Hole Fishing Area South Kingstown Town Beach Matunuck Beach Rd.	(No. 22) (No. 25) (No. 26) (No. 44)	 	М	N U
Oceanfront - Moonstone Area				
Moonstone Beach Road	(No. 27)		М	

Trustom National Wildlife Refuge	(No. 14)			
Oceanfront - Green Hill Area				
Green Hill Avenue Green Hill Beach Road Lot on South Side of Charlestown Beach Road West	(No. 28) (No. 29) (No. 35)	Ι	M M M	N N N
Narrow River				
John Street River Avenue Narrow River Boat Ramp& Fishing Area	(No. 37) (No. 38) (No. 39)	Ι	Μ	U U
Hahn Avenue Lafayette Avenue Middlebridge Bridge	(No. 40) (No. 41) (No. 42)	Ι	M M M	U U

- 1. Of these 24 sites, at least nine could use some improvement work. They are indicated above with an "I."
- 2. Of these 24 sites, 13 need to be marked with shoreline public access signs. The 13 sites that need to be marked are indicated above with an "M."
- 3. Of these 24 sites, six have no available parking. They are noted above with an "N." At eight other sites, it is unclear whether there is any available parking. They are indicated above with a "U."
- b) 13 sites (plus the Potter Pond side of the East Matunuck State Beach parcel) look to be currently unsuitable for use as public access ways or overlooks. They are listed below. (Note: Site No. 17 ["Former Girl Scout Property (II)], which leads to two water areas, is listed twice.)

Point Judith Pond

Hillcrest Road	(No. 1)	I
South Kingstown Public Services Bldg.	(No. 2)	C
Succotash Salt Marsh	(No. 8)	I
Potter Pond		
Atlantic Avenue	(No. 13)	C
East Matunuck State Beach	(No. 21)	I
Green Hill Pond		
Lot on North Side of Charlestown Beach Road West	(No. 15)	I
Former Girl Scout Property (I)	(No. 16)	C

Former Girl Scout Property (II)	(No. 17)	I
Green Hill Acres Marsh	(No. 18)	С
Lot on North Side of Twin Peninsula Avenue	(No. 19)	С
Matunuck Schoolhouse Road / Sandpiper Drive	(No. 20)	I
Oceanfront - Matunuck Area		
Small Lot on Matunuck Point (I)	(No. 23)	С
Small Lot on Matunuck Point (II)	(No. 24)	С
Oceanfront - Green Hill Area		
Former Girl Scout Property (II)	(No. 17)	I.
Narrow River		
Pettaquamscutt Cove	(No. 43)	С

- 1. Of these 13 sites, five (plus the Potter Pond side of the East Matunuck State Beach parcel) could probably be rendered suitable for use as public access ways or overlooks if upgraded or developed. They are indicated above with an "I."
- 2. Of these 13 sites, the remaining eight should probably be protected as conservation areas, with no access. They are indicated above with a "C."
- c) Seven sites need to be further investigated to determine their status, location, and/or suitability for public use. They are:

Point Judith Pond

Potter Pond Bridge	(No. 9)
Oceanfront - Green Hill Area	
Dawn Drive Daybreak Drive Statice Drive Beach Lot (I) Beach Lot (II)	(No. 30) (No. 31) (No. 32) (No. 33) (No. 34)
Narrow River	
Middlebridge Bridge	(No. 36)

LIST "A"

This list contains a complete summary of all shore front parcels in the Town of South Kingstown that are either:

- 1) Owned by the Town, the State, or the Federal Government;
- 2) Platted and accepted as Town or State Roads that extend to, or pass over, the mean high water mark of a tidal water area; or
- 3) Designated as Public Rights-of-Way to the Shore by the RI Coastal Resources Management Council.

As public lands fronting the shore or public ways leading to the shore, all of these sites provide potential public shoreline access opportunities. Yet, in a practical sense, only some of the sites provide actual public shoreline access opportunities, because only some of the sites are viewed as being suitable for general use by the public.

A quick review of the list shows that:

- 1) The total number of sites identified is 44;
- 2) Of the 44, 26 look to be currently well-suited for use as public shoreline access ways;
- 3) Of the 26 suitable access sites, at least 10 could use some improvement work;
- 4) Of the 18 unsuitable sites, three could probably be rendered suitable for use as public access ways if upgraded or developed, while the remaining 15 should probably be protected as conservation areas (with no provisions for access); and
- 5) Of the 44 sites, at least 31 need to be marked.

POINT JUDITH POND

1.	Site:	Hillcrest Road
	Location:	Wakefield
	Water Area:	Saugatucket River/Silver Spring Cove
	Ownership:	Town Road (accepted 1936?)
	Assessor's Plat:	63-2
	Recorded Plat:	LE49/530
	Size:	40' wide
	Condition:	Undeveloped, overgrown, not accessible
	Parking:	Unclear; there may be some on-street parking available at or near the site.
	Signage:	No sign on site.
	Description:	The paved portion of the road dead-ends at a wooden fence. Beyond the
	·	fence is a steep, brush-covered bank and an undisturbed (Town-owned) marsh
		area bordering the river.
	Recommendation:	Only use of site should be as an overlook, (i.e. viewing marsh from street end). Mark site with sign reading "South Kingstown Coastal Overlook."

2.	Site: Location:	South Kingstown Public Services Bldg. Route 1, Wakefield
	Water Area:	Silver Spring Cove
	Ownersnip: Assossor's Diate	10WITLOU 64 1 Lot 1
	ASSESSULS FIAL	04-1, LUL 1 7.22 acrost irregularly shaned: 420' of shoreling frontage
	SIZE.	The developed parties of the let is accuried by the Dublic Services Dept : the
	Condition.	remaining particip is basically undeveloped, every rown, and inaccessible
	Darking	The parking lot on the site is primarily for SKDDS use only.
	Parking. Signago:	Sign identifying Dublic Services Dent. Dida
	Signaye.	Sign identifying Public Services Dept. Didy.
	Description:	undisturbed marsh area. The site provides a good view of the cove and
		surrounding wetlands, but the grounds are fenced-off for safety reasons.
	Recommendation:	Mark edge of marsh with sign reading: "Conservation Area Fragile No
		Trespassing."
3	Site [.]	Marina Park – Boat Ramn (T)
0.	Location:	Salt Pond Road, Wakefield, Ramp is between the Point Judith Yacht Club
	20000000	and the Stone Cove Marina.
	Water Area:	Upper Pond
	Ownership:	Town Road (accepted 1/10/66)
	Assessor's Plat:	64-4
	Recorded Plat:	PB14/1164
	Size:	60' wide
	Condition:	The ramp, which has a relatively steep grade, is currently in poor shape due to
		erosion problems that limit boat launching ability.
	Parking:	Public lot for cars and trailers located across street.
	Signage:	No sign.
	Description:	One of the Town's two public boat ramps at Marina Park. In contrast to the
		other ramp, which occurs on a Town-owned lot, this ramp is actually a Town road,
		i.e., a dogleg that comes off Salt Pond Road. (This status appears to be a
		distinction without much difference, since the whole area is considered part of
		Marina Park.) This ramp has fallen into disrepair and hasn't received much
		(any?) use for some time.
	Recommendation:	Reconstruct ramp and Install sign reading: "South Kingstown Public Boat Ramp."
4.	Site:	Marina Park - Boat Ramp (II) & Overlook
		Salt Pond Road, Wakefield. This site is between the URI Sailing Club and the
		Marina Bay Docking Bldg.
	Water Area:	Upper Pond
	Ownership:	Town Lot
	Assessor's Plat:	64-4, Lot 11

	Size: Condition: Parking: Signage: Description: Recommendation:	 ? Good, accessible, usable as boat ramp and overlook. Public lot for cars and trailers located across street Neither ramp nor overlook have signage. Most of the land comprising Lot 11 is leased (by the Ram Point Marina, URI Sailing Club, Hanson's Pub/Marina Bay Docking Bldg. and Point Judith Yacht Club). (Lot 12, which is also owned by the Town, is leased by the Stone Cove Marina.) The part of Lot 11 that is not leased includes the boat ramp and grass-covered bank on the west side of the restaurant. This ramp is heavily used, particularly during the summer season. The grass-covered bank, with existing benches, offers fine opportunities to relax and enjoy the view of the pond. The ramp has been rehabilitated over the past ten years on an as needed basis. Continue to maintain ramp and repair/replace as warranted. Install sign reading:
5.	Site: Location:	Pond Street Boat Ramp Next to Billington Yacht Club on the northwest side of Shore Point
	Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Signage: Description:	Billington Cove Town Road (accepted 5/12/1856) 69-2 See PB3 / 246, LE50 / 202, and PB8 / 604 Approx. 75' wide Good shape, accessible, usable as boat ramp Appears to be no parking opportunities available at or near site Marked with "So. Kingstown Right of Way – No Parking" sign. The ramp is in good shape, but the absence of any nearby parking opportunity limit its use by the general public.
,	Recommendation:	Explore possibility of establishing some parking opportunities at or near the site. Install and maintain trash receptacle.
6.	Sile: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Signage: Description:	Snug Harbor Lower Pond Town Road (accepted 10/24/60) 88-1 See PB10 / 724 and PB13 / 1006 50' wide (?) Accessible, fair shape Unclear No sign at site Right of way extends beyond paved portion of roadway and leads down steep,

	rocky bank to cobble beach; small, open stretch of shoreline at foot of ROW is
	bounded by several docks, marinas, and shipyards. ROW has the appearance of
	being usurped by neighboring properties
Recommendation:	Mark with sign reading "South Kingstown Public Right of Way". Protect site
	from possible encroachment. Due to potential erosion and safety concerns, consider building a stairway down the bank. Explore the possibility of establishing
	some parking opportunities at or near the site.

7.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plat: Size: Condition: Parking: Signage: Description: Recommendation:	Gooseberry Road Boat Ramp Snug Harbor, across from Gooseberry Island Lower Pond, at beginning of channel that leads to Potter Pond Town Road (accepted 9/10/1883) 88-1 See LE4I / 480 50' wide Good shape, accessible, usable as boat ramp Appear to be no parking opportunities available at or near site Marked with "So. Kingstown Right of Way" sign The ramp is in good condition, but the absence of any nearby parking opportunity limit its use by the general public. Explore possibility of establishing some parking opportunities at or near the
8.	Site	site. Replace existing sign with one reading "South Kingstown Public Boat Ramp." Succotash Salt Marsh

JIC	
Location:	Succotash Road in East Matunuck
Water Area:	Channel linking Point Judith Pond and Potter Pond
Ownership:	State
Assessor's Plats:	88-4 (and partly on 87-3), Lot 1; also appears on Town of Narragansett Plat I,
	Lots 1 and 66
Size:	114 acres (total)
Condition:	Limited access available via two dirt roads that extend into the marsh from
	Succotash Road (in South Kingstown), and three dirt paths that extend off the
	ROW at the north end of Succotash Road in Narragansett (Jerusalem).
Parking:	Available at East Matunuck State Beach parking lots.
Signage:	Marked with "Succotash Salt Marsh" sign
Description:	Very large salt marsh complex that incorporates the area on and around
	Hazard Island
Recommendation:	Due to the environmental sensitivity of the site, care should be taken (by the
	State) to control access and use.

9.	Site:	Potter Pond Bridge
	Location:	East Matunuck

Water Area:	Channel linking Point Judith Pond and Potter Pond
Ownership:	State Road
Assessor's Plat	87-2
Size:	?
Condition:	Good shape, accessible
Parking:	Appear to be no parking opportunities available at or near the site
Signage:	No sign at this site
Description:	Although the bridge is not well suited for pedestrian access, it is sometimes
	used for fishing. During changing tides, the channel's waters flow rapidly and can
	be dangerous for those venturing near the water.
Recommendation:	The State should clarify allowable use(s) of the site and mark with signage.

POTTER POND

10. Site:	Washington Street
Location:	Matunuck
Water Area:	Segar Cove
Ownership:	Town Road (accepted 1/13/75)
Assessor's Plat:	87-4
Recorded Plat:	LE34 / 78
Size:	50' wide
Condition:	Fair shape, accessible
Parking:	Unclear; appears that some on-street parking may be possible at or near the
Signage: Description: Recommendation:	site. Signs noting "No Dumping" and "South Kingston Public Right-of-Way" Steep, brush-covered bank, with path, extending from paved road-end down to rocky shoreline. Scenic area with panoramic view of pond. Long-term use of site could lead to erosion problems due to steepness of bank. Site has potential for possible development as an overlook. Consider site improvement work involving 1) placement of boulders across paved portion of road-end to keep vehicles back from edge of bank, 2) installation of stairway leading down the bank, and/ or 3) installation of benches on top of bank to enhance use of site as overlook. Explore possibility of establishing some designated parking opportunities at or near the site.
11. Site:	Lake Avenue
Location:	Matunuck
Water Area:	Segar Cove
Ownership:	Town Road (accepted 5/14/28)
Assessor's Plat:	87-4
Recorded Plats:	LE33 / 416, PB6 / 436, and PB7 / 487
Size:	50' wide

	Condition: Parking: Signage: Description: Recommendation:	 Good shape, accessible Unclear; appears that some on-street parking may be possible at or near the Site. "South Kingstown Public Right-of-Way" sign. Short, gently sloping, grass-covered bank extending from paved road-end to edge of pond. Site has fine scenic qualities and thereby offers good passive recreation opportunities. Site also has the potential to provide for more active forms of recreation such as swimming, fishing, and launching small hand-carried boats. Investigate establishing some designated parking at or near the site.
12.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Signage: Description: Recommendation:	Park Avenue Matunuck Segar Cove Town Road (accepted 5/14/28) 93-1 LE33 / 416, PB6 / 436, and PB7 / 487 50' wide Good shape, accessible Unclear; some on-street parking may be possible at or near the site "South Kingstown Public Right-of-Way" sign Gently sloping, grass-covered bank extending from paved road-end to edge of pond. Site is apparently used regularly by local residents. Site is located near several moorings. Investigate establishing some designated parking opportunities at or near the site.
13.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Signage: Description: Recommendation:	Atlantic Avenue Matunuck Segar Cove Town Road (accepted 5/14/28) 93-1 LE33 / 416, PB6 / 436, and PB7 / 487 45' wide Overgrown and inaccessible Unclear; some on-street parking may be possible at or near the site "South Kingstown Public Right-of-Way" sign Paved road-end leads to a steep bank covered with dense vegetation. Maintain present conditions; maintain signage.
CROSS	SREFERENCE 1:	See "East Matunuck State Beach" (Site No. 21) for description of State-owned shoreline area bordering the southeast corner of Potter Pond.

CARD POND

CROSS REFERENCE 2:	See "Trustom Pond National Wildlife Refuge" (Site No. 14) for description of
	federally owned land bordering the western and southern shores of Card Pond.

TRUSTOM POND

14. Site:	Trustom National Wildlife Refuge
Location:	Off Matunuck School House Road and Moonstone Beach Road
Water Area:	Trustom Pond, Card Pond, and Block Island Sound
Ownership:	Federal Lots
Assessor's Plats:	85-4, Lot 1 and 91-3, Lots 1 and 4; also extends on to 90-2, 90-3, 91-1, 91-4, 96-2, and 97-1
Size:	278+ acres
Condition:	The designated access way to the north shore of Trustom Pond is in excellent condition and very accessible. The areas bordering the rest of Trustom Pond, the west and south shores of Card Pond, and the oceanfront (above the mean high water mark) are fenced-off and inaccessible from May-September each year; the oceanfront and the south shores of the two ponds are, however, open and accessible during the off-season.
Parking:	There is a public lot at the entrance to the refuge off Matunuck School House Road. On Moonstone Beach Road, parking opportunities are limited to the eight or nine spaces near the end of the road.
Signage:	The entrance to the refuge off Matunuck School House Road is marked with a "Trustom National Wildlife Refuge" sign. The surrounding border areas are well-marked with signs identifying the area as a refuge and instructing the public to keep out.
Description:	The overall refuge encompasses all of Trustom Pond and borders the west and south shores of Card Pond. Along the oceanfront, the refuge extends from the Card Pond breachway to about one-half mile east of Green Hill Beach Road bi- sected by Moonstone Beach Road). The designated access way to the refuge off Matunuck School House Road features a series of well-managed, well-maintained, and well-marked walking trails that wind through scenic fields and wooded areas and lead to an overlook platform on the northern edge of the pond. The overlook site provides an excellent opportunity to view the pond, the very pristine wetlands and habitat areas associated with the pond, and the extensive wildlife (particularly waterfowl) that frequent the area. No fishing, hunting, or boating is allowed on the refuge (which encompasses the entire pond). A number of other rules and regulations such as no dogs or horses are also posted and strictly enforced. The refuge offers fine cross country skiing opportunities during the winter season. Most of the rest of the refuge, including the oceanfront (above the mean high water mark) and the south shores of Trustom and Card Ponds, are fenced and

CROSS REFERENCE 3: See also "Moonstone Beach Road" (Site No. 27) for description of additional opportunity to view (access?) the southwest corner of Card Pond.

	Recommendations:	inaccessible from May through September of each year. The open beach front affords some access opportunities to the shoreline of Trustom and Card Ponds. Explore the feasibility of expanding the usable (summer) beach area on either side of the seaward extension of Moonstone Beach Road.
		GREEN HILL POND
15.	Site:	Lot on North Side of Charlestown Beach Road West
	Location:	Near Sagebed Island on the western end of Green Hill Beach. The lot is adjacent to and east of a developed lot with house #964 on it.
	Water Area:	Southwest corner of pond
	Ownership:	Town Lot
	Assessor's Plat:	95-3, Lot 28 EQ! wide at ready length (from read to pend) varias from EQ4' to E20's shareling
	SIZE.	frontage is 107'
	Condition:	Overgrown with shrubs and tall marsh grasses and inaccessible
	Parking:	Some parking available nearby in the Charlestown Beach public lot for
	Signage:	No sign at site This undeveloped lot has the notential as a recreational facility site. This lot is
	Description.	directly across the street from Lot 2, which fronts the ocean and is also owned by
		the Town (see site No. 35).
	Recommendation:	Explore development possibilities in conjunction with Lot 2 (Site No. 35).
17	Cite	Former Cirl Secut Dreperty (1)
16.	Sile:	FOIMER GIN SCOUL PROPERTY (I) More or less in the middle of Green Hill Beach, on the north side of the
		(undeveloped) eastern extension of Charlestown Beach Road West.
	Water Area:	Southern side of pond
	Ownership:	State Lot
	Assessor's Plat:	95-2, Lot 24
	Size.	9.0 dcles Overgrown with dense vegetation and not accessible
	Parking:	No parking opportunities available at or near site
	Signage:	No sign at site
	Description:	One of three parcels the state acquired from the Girl Scouts of America, Inc. in 1988. This first parcel is a peninsula (which was once an island known as "Goose Island" or "Ward's Island") that juts north into the pond. (The third parcel known as "Hog Hill Island" is, an island that is located in the pond, just north of this peninsula.) Although there is a T-shaped Right of Way (Lot 25) that connects Lot 24 with the eastern extension of Charlestown Beach Road West, it is not clear whether this ROW is available for use by the public (see site No. *8 on the "B" list). What's more, the exact location and status of the eastern extension of Charlestown Beach Road West is uncertain due to the natural shifting of sand and vegetation that has occurred on the barrier beach over the years. The densely vegetated condition of the site does not, however, lend itself to any public use.
	D	

-- No Trespassing."

17.	Site:	Former Girl Scout Property (II)
	Location:	Eastern end of Green Hill Beach, at the eastern end of the (undeveloped)
		eastern extension of Charlestown Beach Road West.
	Water Area:	Flat Meadow Cove/southeast corner of the Pond & Block Island Sound
	Ownership:	State Lot
	Assessor's Plat:	96-1, Lot 2
	Size:	7.6 acres
	Condition:	Although there appear to be a few paths running through the area, the parcel is mostly (if not entirely) overgrown with beach plums, wild peace, and dune grasses, thus making the parcel generally not accessible.
	Parking:	No parking opportunities available at or near site
	Signage:	No sign at site
	Description: Recommendation:	This is the second of three parcels that the state acquired from the Girl Scouts of America, Inc. in 1988. It includes some 720' of pond frontage and extends all the way across the barrier beach to the ocean, where it includes some 465' of ocean frontage. The overall parcel is situated at the eastern terminus of the (undeveloped) eastern extension of Charlestown Beach Road West, the exact location and status of which is uncertain due to the natural shifting of sand and vegetation that has occurred on the barrier beach over the years. A narrow strip of private land, associated with Lot 3 on Assessor's Plat 96-1, separates the parcel from the west end of Charlestown Beach Road East. There are a number of potential uses of the site, including: 1) designating it as a conservation area, with no provisions for public access; 2) designating it as a passive recreation area, and using it as a place to walk, bird watch, etc.; 3) using it (i.e., the paths that run through it) as a direct means of access to the pond (and/or ocean) from Charlestown Beach Road West; 4) establishing small beach areas on the pond (and/or ocean) for swimming and fishing; and 5) using the site as a place for boaters to beach their boats along the shore of the pond and walk across the barrier beach to the ocean. It should be noted that the location and status of Charlestown Beach Road West (namely, its eastern extension) may need to be clarified by the Town in advance of, or in conjunction with, any attempt by the State to establish appropriate uses for Lot 2. (See Site Nos. 30, 31, & 32.) The State should explore possible site improvement or protection
		opportunities and mark the parcel accordingly.
18.	Site:	Green Hill Acres Marsh
	Location:	Green Hill Acres, in area surrounding Teal and Gull Roads (the latter being a paper street)
	Water Area	paper Sireery Flat Meadow Cove
	Nunershin [.]	Town Lots
	Assassar's Dist.	$Q_{0.1}$ dts 11 12 8.17
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	JIZC.	Appiur. J auto

		Condition: Parking: Signage: Description: Recommendation:	Overgrown and inaccessible No parking opportunities available at or near site No sign at site This is a densely vegetated and largely undisturbed marsh area. The site offers no access opportunities. It does, however, need to be preserved and protected, particularly from the possibility of encroachment by abutting property owners. Mark with sign(s) reading "Conservation Area Fragile No Trespassing."
	19.	Site: Location:	Lot on North Side of Twin Peninsula Avenue Green Hill Acres, on north side of Twin Peninsula Avenue, between two houses with street addresses of #176 and #151.
		Water Area: Ownership: Assessor's Plat: Size:	Northwest corner of pond Town Lot 90-4, Lot 60 90' wide
		Condition: Parking: Signage:	Overgrown and inaccessible No parking opportunities available at or near site No sign at site
		Description: Recommendation:	An undeveloped, overgrown lot, covered with shrubs and trees, that is located between two developed lots. The lot is adjacent to the deeper waters of the pond. There appears to be some evidence of encroachment on the lot by the abutting property owners, but this needs to be further investigated. There also appears to be some evidence of dumping on the lot. The lot should be surveyed, and efforts should be made to address any encroachment problems. Site should also be marked with a sign reading "Conservation Area No Trespassing No Dumping."
20.		Site: Water Area: Ownership: Assessor's Plat:	Matunuck School House Road / Sandpiper Drive Intersection North side of pond State Lot 89-2 Lot 32
		Size:	Irregularly shaped: the north end of the lot (along Matunuck School House Road) is 40' wide; it narrows briefly to 20' in width before widening to 100' in width at the pond; the total length of the parcel (along Sandpiper Drive) is 270'.
		Condition: Parking: Signage:	Overgrown and inaccessible Appears to be limited on-street parking available near the site No sign at site
		Description:	The area is thickly wooded, and there are no indications that the site has ever been used.
		Recommendation:	In view of the fact that there are essentially no public access sites on the north side of the pond, the State should explore the possibility of opening the site for passive recreational activities (i.e. walking, birding, and viewing the pond), and perhaps even more active forms of recreation (i.e. boating). The site should then be marked accordingly.

20.

OCEANFRONT

East Matunuck Area

20.	Site: Location: Water Area: Ownership: Assessor's Plat: Size: Condition: Parking: Signage: Description:	East Matunuck State Beach East Matunuck, off Succotash Road Block Island Sound & southeast corner of Potter Pond State Lot 93-2 (and partly on 93-1), Lot 1; also appears on Narragansett Plat I as Lot 2, 61 acres Good shape, accessible Large public lots on site; parking fee charged during summer season Marked with "East Matunuck State Beach" sign Large public beach with facilities and lifeguards available during the summer season. Open stretch of beachfront on seaward side of sand dunes extends west to stairway at end of Ocean Avenue. The overall parcel includes a largely undisturbed and naturally vegetated dune area situated behind the stretch of open beach and dune face on the east side of the parking lot. This area extends back to Potter Pond and includes all of Squally Point. Although there are a few paths leading through the dune grass and to the pond, the area is apparently a nesting site for terns and thus off limits for public use. There are some signs instructing the public to keep out of the area, but they are not readily apparent. It is also not clear whether the access prohibition extends beyond the tern-nesting season. As such, there may be some opportunities for limited public use of the paths leading to the pond, particularly during the off-season; however, care should be taken to prevent the fragile dune system from getting trampled upon. Indeed, it may be advisable to designate the entire dune area behind the beach front as a Conservation Area and
	Recommendation:	Tence It OTT. The State should be requested to clarify its policies governing use of the area bordering the pond, and to mark the site accordingly.

Matunuck Area

22. Site: Ocean Avenue (William J. George S	steps)
Location: Matunuck Point	
Water Area: Block Island Sound	
Ownership: Town Road (accepted 7/14/24)	
Assessor's Plat: 93-1	
Recorded Plats: See PB9 / 675, PB6 / 454, and PB6 / 458	
Size: 40' wide	

	Condition: Parking:	Good shape, accessible Currently, there are no parking areas available at the site; the nearest
	Signage:	public parking area is at the Deep Hole Public Fishing Site. Marked with "South Kingstown Public Right-of-Way" along with plaque on bock
	Description:	Inemortalizing site as "William S. George Steps". Long stairway extends from road end at top of bluff down to the western edge of East Matunuck State Beach. A wonderful, panoramic view of the ocean is available from the top of the bluff. The stairway was built in 1989 by the Town in accordance with an agreement with DEM which stipulated that, once completed, the stairway would become the property of DEM and be maintained and managed in conjunction with East Matunuck State Beach. In February 1990, the state Coastal Resources Management Council designated Ocean Avenue as a public right-of-way to the shore. During the 1991 session of the R.I. General Assembly, Rep. Kelley from South Kingstown (and others) introduced a bill naming the steps the "William J. George Steps." The eastern end of Ocean Avenue, leading out to the steps, is relatively narrow (as constructed), making it very difficult for vehicles to turn around at the site and precluding any opportunities to park at the site. However, because the road, as platted, measures 40 feet in width, it may be possible to widen the road, establish some parking opportunities, and/or install some benches near the stairway to take advantage of the spectacular view offered by the site.
	Recommendation:	Explore possible development of overlook and possible establishment of parking and turn-around opportunities at the road-end. Investigate possibility of encroachment on the road by neighboring properties. Pursue possible relocation or removal of "Private Road" and "Keep Out" signs posted at intersection of Ocean Road (which is public) and Peninsula/Ninigret Roads (which are private).
23.	Site: Location:	Small State Lot on Matunuck Point (I) Matunuck Point, on the south side of the extension of Matunuck Beach Road, 173' east of the Deep Hole Public Fishing Area, between two houses which have street addresses of #1119 (I ot 22) and #1107 (I ot 20)
	Water Area: Ownership: Assessor's Plat: Size: Condition: Darking:	Block Island Sound State Lot 93-4, Lot 21 58' in width Overgrown and inaccessible
	Parking: Siqnaqe: Description:	Available hear site at Deep Hole Public Fishing Area No sign at site The parcel is a small, overgrown, vacant lot sandwiched between two privately owned, developed lots (Nos. 22 and 20). The primary concern associated with this parcel involves the threat of encroachment by the abutting property owners. Although the eastern extension of Matunuck Beach Road, which leads to the parcel, is marked "Private - Do Not Enter, there is reason to believe that the (dirt) road may in fact be a public way - a continuation of Matunuck Beach Road.(See site No *12 on List "B ")
	Recommendation:	It is unclear whether the site has any future development potential. For the

		time being, the State should mark the site with a sign reading "Conservation Area - - No Trespassing" and address any existing or potential encroachment problems.
24.	Site: Location:	Small State Lot on Matunuck Point (II) Matunuck Point, on the south side of the extension of Matunuck Beach Road,
	Water Area	60' east of the Deep Hole Public Fishing Area. Block Island Sound
	Ownership:	State Lot
	Assessor's Plat:	93-4, Lot 19
	Size:	55' in width
	Condition:	Overgrown and inaccessible
	Parking:	Available near site at Deep Hole Public Fishing Area
	Signage: Description:	The parcel is a small, overgrown, vacant lot situated between a privately owned, developed lot (No. 20, with house #1107) on the east and a privately owned, vacant lot (No. 18) on the west. Although the eastern extension of Matunuck Beach Road, which leads to the parcel, is marked "Private Do Not Enter," there is reason to believe that the (dirt) road may in fact be a public way, namely a continuation of Matunuck Beach Road. (See Site No. *12 on List "B.")
	Recommendation:	The State might want to consider acquiring Lot 18. This would expand the length (along the shorefront) of the Deep Hole Public Fishing Area by 115' (i.e., 60' with Lot 18, and 55' with Lot 19). The expanded upland area could be used as an overlook, or possibly an expanded parking area; or it could be protected as a Conservation Area. Moreover, the expanded beachfront would give fishers more room to fish. For the time being, the state should mark the site with a sign reading "Conservation Area – No Trespassing" and address any existing or potential encroachment problems.
25.	Site:	Deep Hole Public Fishing Area Matunuck Point, at the intersection of Matunuck Beach Poad and Ocean
		Avenue
	Water Area:	Block Island Sound
	Ownership:	State Lot
	Assessor's Plat:	93-4, Lot 17
	SIZE:	31,410 Square feet, including some 250 of shoreline frontage
	Parking:	Public lot on site with room for approx 20 vehicles
	Signage:	Marked with a DEM "Public Fishing Area" sign. Use restrictions (described
	0 0	below) are also posted.
	Description:	The cleared (dirt) parking lot opens more or less directly to a cobble beach area on the shore. The site is frequently used by fishers (and surfers). According to the regulations posted at the site, the area is closed from 1/2 hour after sunset to 5:00 a.m. except for fishing and boating, and all other uses and activities are prohibited. The site provides excellent shoreline access opportunities. However, the dunes, which once separated the upland area (i.e., the parking lot) from the

Recommendation:	cobble beach area, have disappeared apparently due in large part to heavy pedestrian (and perhaps vehicular) traffic leaving the site exposed to the sea and susceptible to flooding and erosion during storm events. The state should explore the possibility of restoring the dunes on the south side of the parking area and installing one or two ramped walkways to provide access through or over the dunes.
44. Site:	Matunuck Beach Road
Location:	Matunuck Beach Road; approximately 280' west of Matunuck Beach Rd. and Ocean Ave, intersection
Water Area:	Block Island Sound
Ownership:	Private Lot
Assessor's Plat:	93-4,Lot 13
Size:	0.4 acres
Condition:	Good; accessible
Parking:	Limited available street parking with restrictions
Signage:	None
Description:	Town right-of-way; 15" wide and located along eastern edge of parcel as granted to the Town by the Narragansett Salt Water Fishing Club (LE 1305/733)
Recommendation:	Install "South Kingstown Public Right-of-Way" sign; improve site to clearly define extent of public access corridor
26. Site:	South Kingstown Town Beach
Location:	Matunuck Beach Road
Water Area:	Block Island Sound
Ownership:	Town Lots
Assessor's Plat:	92-2, Lots 39 and 43
Size:	1,358' of ocean frontage
Condition:	Good shape, accessible
Parking:	Public lot on site with room for approx. 120 vehicles. Parking fee charged from Memorial Day to Labor Day (7 a.m 3 p.m.); summer parking stickers are available.
Signage:	Marked with "South Kingstown Town Beach" signs
Description:	Large, developed public beach area with bathroom facilities and lifeguards available during summer season.
Recommendation:	Continue to maintain the grounds and facilites to the extent feasible, including periodic sand replenishment along beach as needed.

Moonstone Area

27. Site:	Moonstone Beach Road
Location:	Moonstone Beach
Water Area:	Block Island Sound
Ownership:	Town Road
Assessor's Plat:	91-3
Recorded Plats: Size:	See PB2/ 134, PB9 / 624, PB3 / 244, and LE36 / 64 50' wide
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Condition:	Good shape, accessible
Parking:	Currently limited to eight or nine spaces along the side of the road. From
	Memorial Day to Labor Day, reserved for Town resident beach sticker holders.
Signage:	No sign at site
Description:	Open path extending from paved road-end to beach. Although the relatively small (50' wide) beach area at the foot of the ROW remains open and usable, the beachfront areas bordering the ROW are part of the Trustom National Wildlife Refuge, and, as such, they are fenced-off and inaccessible (above the mean high water mark) from May-September of each year.
Recommendation:	Mark with sign reading "South Kingstown Public Right of Way."
<u>CROSS REFERENCE 4:</u>	See "Trustom National Wildlife Refuge" (Site No. 14) for description of federally owned land bordering the oceanfront on east and west sides of Moonstone Beach Road.

Green Hill Area

28.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plat: Size: Condition: Parking: Signage:	Green Hill Avenue Green Hill Block Island Sound Town Road (accepted 4/14/69) 96-2 See LE44 / I6 and LE46 / 8 10' wide Good shape, accessible No parking opportunities available at or near site A narrow sand path leading from the paved road-end to the beach. Appears to
20	Recommendation:	Address encroachment problems and return site to original dimensions. Remove private sign and install sign reading "South Kingstown Public Right-of- Way." Explore possibility of undertaking site improvements, such as installation of bike rack and bench.
29.	Site:	Green Hill Beach Koad

9.	Site:	Green Hill Beach Road
	Location:	Green Hill
	Water Area:	Block Island Sound
	Ownership:	Town Road (accepted 5/31/1884 and 10/1890)
	Assessor's Plat:	96-1
	Recorded Plat:	See PB2 / 138 and LE43 / 26
	Size:	40-60' wide (?)
	Condition:	Good shape, accessible
		•

No parking opportunities available at or near site No sign at site A wide sand path extending from the paved road-end to the beach. Continue to maintain fences, or other demarcation, along sides of ROW. Mark with sign reading "South Kingstown Public Right of Way." Explore possibility of establishing some parking opportunities at or near the site.
See "Former Girl Scout Property (II)" (site No. 17) for description of State- owned parcel fronting the ocean just west of Green Hill Beach Road.
Dawn Drive / Daybreak Drive / Statice Drive
West
Block Island Sound
Unclear
Dawn Drive appears as Lot 4.1 on 95-2
Daybreak Drive appears as Lot 26.1 on 95-3 Statice Drive appears as Lot 12.1 on 05.2
Statice Drive appears as Lot 13.1 01 93-3 See PB8 / 557
All three are 20' wide
?
No parking opportunities available at or near the sites.
No signs at any of the sites.
Although the ownership of these sites is somewhat in question, their legal status as public right-of-ways to the shore has been established by virtue of their designation (as public ROWs) by the Coastal Resources Management Council on 2/13/90.All three ROWs extend south to the ocean from the (undeveloped) eastern extension of Charlestown Beach Road West. Their approximate location can be described in reference to the two houses that stand alone out on the central portion of Green Hill Beach: the house numbered 1155 (Lot 4 on Assessor's Plat 95-2) is on the one on the east, and the house numbered 1101 (Lot 2 on Assessor's Plat 95-2) is the one on the west. A review of the plat maps indicates that: 1)Dawn Drive appears to be about halfway between house #1155 and the last House (#190) on the west end of Charlestown Beach Road East; 2) Daybreak Drive is adjacent to and east of the lot on which house #1155 stands; and 3) Statice Drive is approximately 190' west of house #1101. Because there are several sand paths leading through the dunes and to the beach from Charlestown Beach Road West in the general vicinity of the above-described sites, it is possible that some or all of the ROWs are currently accessible. However, before any accurate characterization of their status can be made, their exact location needs to be determined. It is important to note that the utility of all three ROWs as potential shoreline access ways depends on the public's right to traverse Charlestown Beach Road West. This right apparently does exist, as reflected by the recorded

Recommendation:	and 7/8/74. Yet despite the apparent public status of the road, it is marked with a sign that reads "Green Hill Beach, S. Kingstown – PRIVATE No Public Access To Beach On This Road DEAD END Private Driveways - No Turn Arounds VIOLATORS WILL BE PROSECUTED Green Hill Beach Owners Assoc., S. Kingstown, R.I." While there is clearly a need to dissuade vehicles from using Charlestown Beach Road West (the very soft sand and the lack of any room to turn around make it inaccessible for most vehicles), the assertion that the road is private and affords no public access opportunities to the beach is incorrect and misleading. Thus, the situation apparently needs to be clarified. Seek to resolve the ownership and jurisdictional questions pertaining to the sites. Seek to determine the exact location of the sites. If appropriate, consider potential use of the sites as access ways otherwise designate and mark as Conservation Areas. Seek to clarify the legal status of Charlestown Beach Road West and, if appropriate remove sign indicating that the road is private.
22/21 Sitos	Green Hill Beach Lots I & II
l ocation:	On Green Hill Beach, off a paper street (Mascagni Drive) that loops south from
2000.00.00	the eastern extension of Charlestown Beach Road West.
Water Area:	Block Island Sound
Ownership:	Town Lots
Assessor's Plat:	95-3, Lots 20 and 18
Size:	Lot 18 is 70' wide; Lot 20 is 65' wide
Condition:	Unclear; both lots appear to be patches of sand fronting the ocean, and, as such, both appear to be in good shape and accessible.
Parking:	No parking opportunities available at or near the sites.
Signage:	No signs at sites.
Description:	Both lots are situated south of and adjacent to Mascagni Drive, which currently exists, and perhaps always existed, as a paper street. Mascagni Drive, as platted, is a private street that loops in a southerly direction from the (undeveloped) eastern extension of Charlestown Beach Road West. Over the years, Mascagni Drive has apparently been encroached upon by the sea, and, as a result, its location is now somewhere in the general vicinity of the beach area between the seaward edge of the vegetated sand dune complex and the water line. The approximate location of the lots can also be described in reference to the two houses that stand alone out on the central portion of Green Hill Beach: the house numbered 1155 (Lot 4 on Assessor's Plat 95-2) is the one on the east, and the house numbered 1101 (Lot 2 on Assessor's Plat 95-2) is the one on the west. A review of plats 95-2 and 95-3 indicates that: 1) Lot 18 appears to be due south of the east edge of the lot on which house #1101 stands; and 2) Lot 20 is exactly 65' east of Lot 18. Based on this information, it looks like both lots are situated on the dry sand portion of the beach on the seaward side of the vegetated sand dune complex. Although the juxtaposition of these two Town-owned lots with a private (paper) road would seem to obviate their potential use as accessways to the shore from Charlestown Beach Road West, both parcels could possibly serve as small

Recommendation:	public beach areas, accessible by walking east or west along the mean high water mark. May want to determine the exact location of these two lots. If appropriate, may establish them as either small public beach areas or conservation areas.
35. Site: Location: Water Area: Ownership: Assessor's Plat: Size: Condition:	Town Lot on South Side of Charlestown Beach Road West Across the street from the east edge of the lot on which house #964 stands Block Island Sound Town Lot 95-3, Lot 2 75' wide, approximately 30' down to mean high water mark Appears to be walkway on site: as such, site appears to be in good shape and
Parking:	accessible. Some parking available nearby in the Town of Charlestown's public lot for Charlestown Beach
Signage: Description:	No sign at site. The site consists of vegetated dunes and an open beach area. On (or near) the lot there is a wooden walkway, in good shape, that leads over the dunes and to the beach. In addition to providing access to the beach from Charlestown Beach Road West, the site includes a 75' wide patch of sand which could conceivably serve as some sort of small public beach area. Lot is directly across the street from Lot 28, which is an undeveloped Town-owned lot that borders Green Hill Pond (see site No. 15 on this list).
Recommendation:	Survey site to determine exact location. Explore development possibilities in conjunction with Lot 28 (Site No. 15 on this list).

NARROW RIVER

36.	Site: Location: Water Area: Ownership: Assessor's Plat: Size:	Upper Bridge Bridgetown Road at the border between South Kingstown and Narragansett Narrow River State Road N/A ?
	Condition:	Good shape, accessible
	Parking:	Unclear; may be some opportunities available on Narragansett side.
	Signage:	No sign at site.
	Description:	Although the bridge is not well-suited for pedestrian access it is used by the public on a periodic basis. It is not clear, however, whether these activities are allowed at the site.
	Recommendation:	Contact the State to clarify allowable use(s) of the site and install regulations/prohibitions signs accordingly.

37.	Site:	John Street
	Location:	Off Middlebridge Road, about one-half mile north of Torrey Road, across the
		street from the Pettaquamscutt Rock recreational area.
	Water Area:	Narrow River
	Ownership:	Town Road (accepted 8/11/52)
	Assessor's Plat:	35-4
	Recorded Plats:	See PB10 / 750 and PB11 / 758B
	Size:	Northern extension is about 150' long and 40/ wide.
	Condition:	Good shape, accessible
	Parking	Unclear, not posted
	Signage	"South Kingstown Public Right-of-Way" sign
	Description	John Street is L-shaped, extending east from Middlebridge Road and then
	Description.	north (hetween Lots 86 and 87) to the river. The eastern led is naved: the northern
		extension to the river is a strin of grass
	Docommondation:	Evolore the nessibility of establishing some designated parking encortunities at or
		noar the site. Continue to maintain grassed DOW noth
		hear the site. Continue to maintain grassed ROW path.
38.	Site:	River Avenue
	Location:	Off Middlebridge Road, about one-half mile north of Torrey Road, just south of
	2000410111	the Pettaguamscutt Rock recreational area
	Water Area	Narrow River
	Ownershin [.]	Town Road (accented 1/2/76)
	Δssessor's Plat·	35_1
	Decorded Dists	S_{00} DB10 / 758A and LE122 / 178
	Sizo	2
	Condition:	: Cood shano, accossiblo
	Darking	Unclear not nosted
	Signago:	No sign at sito
	Description:	A grass strip and a gently sloping grass bank ovtending from naved read and
	Description.	to odgo of river. It is not clear whether the site receives much use
	Decommondation	Clarify the existing parking situation on Diver Avenue and if appropriate
	Recommenuation.	Cidility the existing parking studion on River Avenue and, it appropriate,
		explore the possibility of establishing some designated parking opportunities at of
		near the site. Mark with sign reading South Kingstown Public Right-OF-Way.
20	C'+-	Nerrow Diver Dublic Deet Demp and Fishing Area
39.	Site:	Narrow River Public Boat Ramp and Fishing Area
	Location:	At east end of Pollock and Mitchell Avenues
	Water Area:	Narrow River
	Ownership:	State Lots
	Assessor's Plat :	43-1, Lots 33, 42, and 43
	Size:	?
	Condition:	Good shape, accessible
	Parking:	Public lot on site with about 15 +/- vehicle capacity
	Signage:	Marked with DEM sign - "Narrow River Fishing Area", along with State sign
		detailing regulations and prohibitions.

	Description:	Lots 33, 42, and 43 are situated at the east ends of Pollock and Mitchell Avenues. Together, they form a small recreational area comprised of a cleared dirt parking lot, a boat ramp, and a small grass strip that runs along the top of the river bank. The ramp is heavily used during the summer months. Boaters also use the small stretch of shoreline at the site as a place to tie up their boats (presumably on a short-term basis only). According to the regulations posted at the site, the area is closed from one-half hour after sun-set to 5:00 a.m. except for fishing and boating, and all other uses and activities are prohibited.
	Recommendation:	Continue dialogue with DEM regarding maintenance and operation of the site.
40.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size:	Hahn Avenue Off Middlebridge Road, just north of Torrey Road Narrow River Town Road 43-1 See LE44 / 155 and PB15 / 1281 ?
	Condition: Parking:	Fair shape, somewhat accessible Unclear, not posted
	Signage: Description:	No sign at site. Small area of dirt and a small, brush covered bank extending from paved Road ending to edge of river. The site apparently doesn't receive much use
	Recommendation:	Consider small-scale development project (i.e. stairway, benches). The existing parking situation on Hahn Avenue should be clarified and, if appropriate, the possibility of establishing some designated parking opportunities at or near the site should be explored. Mark with "South Kingstown Public Right-Of-Way" sign.
41.	Site: Location: Water Area:	Lafayette Avenue Off Middlebridge Road, just north of Middle Bridge Narrow River
	Ownership: Assessor's Plat:	Town Road 43-4
	Recorded Plats: Size:	See LE46 / 435 ?
	Condition:	Good shape, accessible
	Signage:	No sign at site
	Description:	Small grass-covered bank and small asphalt ramp extending from paved road ending to edge of river. Site appears to be well-suited for use as a launching site for small, hand-carried boats.
	Recommendation:	Clarify the existing parking situation on Lafayette Avenue and, if appropriate, explore the possibility of establishing some designated parking opportunities at or near the site. Mark with sign reading "South Kingstown Public Right-Of-Way."

42.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parkinq: Siqnaqe: Description:	 Middllebridge Bridge Middlebridge Road, at the South Kingstown/Narragansett town line Narrow River Town Road N/A ? N/A Good shape, accessible There are apparently some parking opportunities available on the Narragansett side of the bridge. No sign at site The bridge, with narrow walkways on both sides, is a popular recreational
	Recommendation:	fishing site. Explore the possibility of increasing available parking opportunities and/or installing a bike rack at the site. Work with Town of Narragansett and State to determine whether any use restrictions are needed on the bridge, and mark the site accordingly.
43.	Site: Location: Water Area: Ownership: Assessor's Plat: Size: Condition:	Pettaquamscutt Cove Behind the Stedman Government Center and the McGath Judicial Complex Southwest corner of Pettaquamscutt Cove, at the south end of Narrow River State Lot 50-4, Lot 11; also extends on to 50-3, 58-1, and 58-2. 114 acres Although there are some paths running through the parcel, the site is, for the most part, overgrown with trees, thick brush and wetlands, and thus generally inaccessible
	Parkinq: Siqnaqe: Description:	There are two public lots on the site - one for the Stedman Government Center and one for the McGrath Judicial Complex. The wooded area behind the two buildings is not marked. Lot 11 is a large parcel, that includes most of the undeveloped land on southwest corner of Pettaquamscutt Cove. Although the parcel is mostly overgrown, there
	Recommendation:	are some paths that lead through the woods and terminate at the edge of an extensive salt marsh complex bordering the cove. These paths can be accessed from behind the Court Building. The pristine nature of the area suggests that the site may not be suitable for general public use (especially as a shoreline access site). Moreover, much of the area in and around Pettaquamscutt Cove is part of Chafee NWR. Seek clarification of the status of the site from the State, and encourage the State
		to mark the site in accordance with its designated use.

LIST "B"

List B identifies a total of 20 more potential public rights-of-way to the shore in South Kingstown, which, due to various uncertainties, require additional research and legal verification before they can be formally characterized as "public." The 20 sites are listed below.

Point Judith Pond

West End of Salt Pond Road North End of Gooseberry Island	(No. *1) (No. *2)	2
Potter Pond		
End of Prospect Road - West Side End of Prospect Road - East Side Prospect Road Causeway Water Street	(No. *3) (No. *4) (No. *5) (No. *6)	2
Green Hill Pond		
 25' ROW on North Side of Charlestown Beach Road West T-Shaped ROW Between Charlestown Beach Road West & Former Girl Scout Property (I) 50' ROW Off Green Hill Beach Rd. 40' ROW Off Green Hill Beach Rd. Tip of South Peninsula 	(No. *7) (No. *8) (No. *9) (No. *10) (No. *11)	2 2 1
Oceanfront - Matunuck Area		
Matunuck Beach Road Extension	(No. *12)	1
Oceanfront - Green Hill Area		
Helichrysium Drive	(No. *13)	2
Narrow River		
Harcourt Avenue Wakefield Avenue	(No. *14) (No. *15)	1 1

Kingston Avenue	(No. *16)	1
Edwards Avenue	(No. *17)	1
Cook Avenue	(No. *18)	1
Ash Street	(No. *19)	
Grant Avenue	(No. *20)	

- 1. Of the 20 sites, eight are regarded as being of primary importance; they are noted above with a "1."
- 2. Of the 20 sites, five are regarded as being of secondary importance; they are noted above with a "2."

LIST "B"

Following are the listings and descriptions of the twenty (20) additional potential public shoreline access sites in South Kingstown, which due to various uncertainties, require additional legal verification before they can be formally characterized as public ways.

POINT JUDITH POND

*1.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plat: Size: Condition: Parking: Siqnage: Description:	West End of Salt Pond Road Marina Park, Wakefield Upper Pond Town Lot 64-4, Lot 11 See PB14 / 1164 See PB14/1164 Strip of land beyond road-end is open and accessible; shoreline area has dock facilities which limit direct access to water. Public lot located on north side of Salt Pond Road. No sign at site The west end of Salt Pond Road, as platted, does not extend to the water; rather, it stops just short, at the edge of a thin strip of land which is part of Lot 11. Because Lot 11 is Town-owned, there may be some existing or potential opportunity to use this site as a means for accessing the shore from the end of Salt Pond Road. However, because this part of Lot 11 is leased to the Ram Point Marina, there may be restrictions on the public's rights to traverse the parcel. Further research is required.
	Site: Location:	North End of Gooseberry Island North of Jerusalem, off the right-of-way that extends north from the end of Succotash Road
	Water Area:	Lower Pond
	Ownership:	?
	Assessor's Plat:	88-4
	Recorded Plat:	?
	Size:	?
	Condition:	Parts of the area appear to be accessible.

*2

Parking: Signage: There is enough room for several vehicles to park, if permitted. There is a "Restricted" sign posted at the beginning of the dirt road (i.e., the ROW) that extends north from the end of Succotash Road.

Description: The dirt road leading out to the north end of Gooseberry Island is identified as an "ROW" on Assessor's Plat 88-4. The road is the only means of access to the houses that are located out on the "island." (The site was apparently an is-land at one time, but it exists today as a peninsula.) The road passes through a portion of State-owned land associated with the Succotash Salt Marsh (see Lot 1 on Assessor's Plats 88-4 and 87-3 and Lots 1 & 66 on Town of Narragansett Assessor's Plat I.) There are three paths that extend east from the dirt road to the pond, and, as such, it appears that there may be some shoreline access opportunities available in the vicinity of Gooseberry Island. Because the road is posted with a "Restricted" sign, however, there is a need to further investigate the situation.

POTTER POND

*3.	Site: Location: Water Area: Ownership: Assessor's Plat: Size: Condition:	End of Prospect Road West Side Gardner Island (Matunuck) Segar Cove ? See PB8 / 558 Approx. 10' wide Although the grass strip is accessible, the bank on the edge of the pond is overgrown and net readily accessible
	Parking:	Unclear, not posted
	Signage:	No sign at site
	Description:	A narrow strip of grass extending west from Prospect Road to an overgrown bank on Segar Cove. Lot 46, which abuts the strip on the north side, is an undeveloped lot. Lot 45, which abuts the strip on the south side, is the site of house #212. On the Assessor's Plat, the strip is shown as an unidentified gap between Lots 45 and 46. On the Recorded Plat, the strip is identified as a "Pathway." The question of whether the pathway is a public or private right of way needs to be explored.
*4	Site [,]	End of Prospect Road Fast Side
т.	Location.	Gardner Island (Matunuck)
	Water Area:	Seaweed Cove
	Ownership:	Town (?)
	Assessor's Plat:	93-1
	Recorded Plat:	See PB8 / 558
	Size:	10' wide
	Condition:	Overgrown and not accessible
	Parking:	Unclear, not posted

Siqna	age: cription:	No sign at site On the Recorded Plat, a "Pathway" between Prospect Road and the cove was shown as being situated between Lot 3 on the south and Lot 4 on the north. Lot 4 is the original lot number corresponding to Lot 49 on the Assessor's Plat. In a Superior Court decision dated 4/22/88 (see LE329 / 480), it was determined that the Ricciardelli's (owners of Lot 49) own (or became owners of) the "pathway." Lot 3 is the original lot corresponding to Lot 50 on the Assessor's Plat. The 1987 deed from Nabstedt to Heisler (see LE313 / 94) conveyed Lot 3 "subject to the rights of the public to the shore." The deed also stated that "Notice is given pursuant to RIGL 2-21-26 that a portion of the lot is wetlands." On the Assessor's Plat, Lot 50 is shown and described as being "split" in 1988, with a "10' ROW add(ed)." The Plat also notes that a related modification involved the creation of a new lot, No. 176. Taken together, the Court decision, the Heisler deed, and the information added to the Assessor's Plat suggest that the original pathway no longer exists and that a new 10' wide public ROW, which happens to be overgrown and inaccessible, now runs between Lots 50 and 176. In a verbal communication Heisler explains that he granted the 10' wide strip to the Town, and that the Town accepted it, with the stipulation that it be preserved in its natural state i.e., its current condition.Although the strip now appears to be a dedicated conservation area, the question of whether the "rights of the Public to the shore" remain intact at the site needs to be further investigated.
Site: Loca Wate Own Asse Reco Size: Cono Parki Signa Deso	tion: er Area: ership: essor's Plat: orded Plat: dition: ing: age: cription:	Prospect Road Causeway Between Gardner Island and the mainland in Matunuck. Segar and Seaweed Coves Town Road (?) 93-1 ? Fairly accessible ? ? The causeway leading out to Gardner Island is apparently used from time to time as a place to fish, walk along the rocks, etc. Although it appears that such use involving direct access to the shore via a Town road is legally appropriate, the status of the site needs to be further investigated and clarified.
Site: Loca Wate Own Asse Reco Size:	tion: er Area: ership: essor's Plats: orded Plats:	Water Street Matunuck Seaweed Cove ? 93-1 and 93-4 See LE35 / 334, PB10 / 698, PB6 / 454, and PB8 / 576 ?

*5.

*6.

Condition:	Good shape, accessible
Parking:	No parking on Water Street. Some on-street parking is available nearby on
C C	Matunuck Beach Road.
Signage:	No sign at site
Description:	A short dirt road extending north from Matunuck Beach Road to a small ramp
	on the edge of the pond. Although there is nothing in the land evidence records
	indicating that Water Street is private, it is identified as such in the Town's Street
	Inventory. The actual legal status of the site therefore needs to be clarified.

GREEN HILL POND

*7.	Site Location: Water Area: Ownership: Assessor's Plat: ` Recorded Plats: Size: Condition: Parking:	25' ROW on north side of Charlestown Beach Road West Green Hill Beach area Southwest corner of Pond ? 95-2 ? 25' wide Overgrown and inaccessible Some parking available nearby in the Town of Charlestown's public lot for Charlestown Beach
	Signage: Description:	The site is shown as a 25' wide "Right-Of-Way" on the Assessor's Plat. It is situated between two privately owned, undeveloped lots: Lot 27 on Plat 95-3 and Lot 41 on Plat 95-2. A review of the two Plats shows that the ROW is 50' west of Lot 40, which is the site of house #994 and 120' east of Lot 29, which is the site of house #964. The ROW also happens to be 70' east of Lot 28, which is an undeveloped Town-owned lot also situated between Charlestown Beach Road West and the Pond (see Site No. 15). Based on this information, it is evident that the ROW occurs on a stretch of undeveloped and overgrown land. Aside from the Assessor's Plat, only one other reference to the site was found in the land evidence records: In the deed from Link to Godden (see LE 234 / 93), conveying Lot 41 on Assessor's Plat 95-2, the lot is described as being "bounded on the west by a right-of-way." The question of whether the ROW is public or private needs to be explored.
*8.	Site:	T-Shaped ROW Between Charlestown Beach Road West and Former Girl Scout Property (I)
	Location:	In the middle of Green Hill Beach, off the (undeveloped) eastern extension of Charlestown Beach Road West.
	Water Area: Ownership:	Southern side of pond
	Assessor's Plat: Recorded Plats:	95-2, Lot 25 See PB8 / 557, PB8 / 580, and PB19 / 28

Size:	The lot is a T-shaped parcel; its initial leg is 40' wide and extends north from the eastern extension of) Charlestown Beach Road West for a distance of 225'; the north end of this leg intersects with a 19.84' wide strip that extends east and
	west to two points on the pond
Condition	Unclear: appears to be primarily overgrown, but certain areas may be accessible
Parking:	No parking opportunities available at or near the site.
Signage:	No sign at site.
Description:	Lot 25 is situated between the (undeveloped) eastern extension of
I	Charlestown Beach Road West and Lot 24, the large overgrown parcel on the
	pond that was recently acquired by the State (see "Former Girl Scout Property (I)",
	site No. 16.). Because the entire northern edge of Lot 25 borders the entire
	southern edge of Lot 24, Lot 25 appears to serve not only as a potential means for
	accessing the shores of the pond, but also as the only means for accessing Lot
	24. Yet since Lot 24 is overgrown and inaccessible, the question of access to it
	does not appear to be a major issue. The T-shaped parcel of land identified as Lot
	25 011 (11e ASSESSOI 5 PIAL IS SEL OUL AS & T-STIAPED RIGHT-01-WAY 011 (11e (11ee Decorded Plats, There is no property index card for Let 25 indicating that its status
	is "owner unknown "A 1970 deed from Mee to Marder (see LE 106 / 513)
	conveyed numerous lots from the April 1936 Recorded Plat included in this
	conveyance was the land on the north side of Charlestown Beach Road West that
	bounds Lot 25 on its south, east, and west sides. Specifically included in the
	operation of this conveyance was "all the grantor's interest in and tothe right-of-
	way 40 feet wide, and a right-of-way 19.84 feet wide, all laid out by said Charles C.
	Bliss, and more fully shown and delineated on [the April 1936 Recorded Plat]."
	An earlier deed from Bliss to Mee (see LE50 / 320) conveyed a number of lots
	from the 1936 plat, including "a right-of-way 40" wide as laid out by the Grantor,
	and a right-of-way 19.84' wide as laid out by the Grantor." As stated in the deed,
	Billss also conveyed to mee all the rights, title and interests which I have of
	forth on earlier plats of the areal reserving, however, any and all my rights and the
	several and respective rights of [others] in and to Helichrysium Drive Statice
	Drive, Mascagni Drive, Daybreak Drive, Dawn Drive[and] a 40' right-of-way and
	the right-of-way bordering on the southerly line of Ward's Island."It would therefore
	seem as though Lot 25 might be a private ROW. Yet one would assume that the
	owner of Lot 24, which is now the state of Rhode Island, would have some legal
	means available for accessing the parcel from Charlestown Beach Road West.
	What's more, according to the 1937 deed, the status of the 40' and 19.84' ROWs
	(together forming Lot 25) appears to be identical to that of Statice Dr., Daybreak
	Dr., and Dawn Dr., all of which were designated as public rights-of-way by the RI
	Coastal Resources Management Council in 1990 (see sites No. 32, 33, and 34).
	Thus, the status of Lot 25 needs to be further investigated and clarified.

*9. Site Location: Water Area: Ownership: 50' ROW Off Green Hill Beach Road Green Hill Flat Meadow Cove ?

	Assessor's Plat: Recorded Plats: Size: Condition: Parking: Signage: Description:	 96-1, Lot 103 50' wide Unclear, may be accessible No parking opportunities available at or near the site The dirt drive is roped off and marked "Private Green Hill Civic Assoc." The Assessor's Plat identifies Lot 103 as a Right-Of-Way. There is no property index card for the lot, indicating that its status is "owner unknown." Lot 103 is an undeveloped lot situated between two other undeveloped lots one of these abutting lots (Lot 102) is owned by a private individual; the other abutting lot (Lot 104), which is on the north side, is owned by the Green Hill Civic Assoc. The entire eastern shore of Flat Meadow Cove is undeveloped north of Lot 101, which is the site of house #975. Lot 101 is 100' south of Lot 103. Based on this information, it appears that there is a dirt drive extending west from Green Hill Beach Road to the pond in the general vicinity of Lot 103. The exact location of the lot remains unclear, however. The overall status of the site clearly needs to be examined further.
*1(0. Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Siqnage: Description:	40' ROW Off Green Hill Beach Road Green Hill, directly across from (i.e., west of) Browning street Flat Meadow Cove ? 96-1, Lot 93 ? 40' wide, 1.33 acres Unclear, appears to be overgrown No parking opportunities available at or near the site. ? Identified as Right-Of-Way on Assessor's Plat. Status of site needs to be investigated.
*11	1. Site: Location: Water Area: Ownership: Assessor's Plat: Size: Condition: Parkinq:	Tip of South Peninsula Green Hill Acres, at the south end of Twin Peninsula Avenue Flat Meadow Cove/Southeastern portion of pond Town Lots 89-3, Lots 2 and 3 ? Although most of the area is overgrown, there is a path that leads to (and along) the shoreline. The small clearing at the beginning of the site (i.e., at the south end of Twin Peninsula Avenue) provides barely enough room to turn around and little or no room to park There appears to be no other opportunities to park in the Green Hill
	Siqnage:	Acres area. Marked with sign reading "Private Property For Green Hill Acres Residents Only No Hunting [or] Trespassing."

Description:	The two parcels constitute the entire undeveloped tip of South Peninsula, which is the area located at the south end of Twin Peninsula Avenue (a narrow dirt road). There is a small clearing at the end of the road, and from this clearing a path leads out along the shoreline to the tip of the peninsula. Although the peninsula should be protected as a conservation area, the site does lend itself to passive recreational activities, such as walking and bird watching. The assertion that the site is private and off-limits to the general public (as currently posted) seems inappropriate, given that it is a Town-owned site. Thus, the situation apparently needs to be clarified. On a related note, Twin Peninsula Avenue is the only road running through the community of Green Hill Acres-that is not identified as "Private" on the Assessor's Plats. Yet the Town's Street Inventory classifies Twin Peninsula Avenue as both public and private, and it states that on 4/14/69, the Town Council accepted the first 320'of Twin Peninsula Avenue. Oddly, a check of the minutes from the 4/14/69 Town Council meeting does not reveal that any action was taken by the Town with respect to Twin Peninsula Avenue. So it remains unclear whether the public can legally access Lots 2 and 3 via Twin Peninsula Ave.

Recommendation: Although the site should be preserved and protected as a conservation area, the site does lend itself to passive recreation, namely walking, bird watching, viewing the pond, and the like (and possibly fishing and swimming as well). To enhance these opportunities it might be a good idea to consider installing a bike rack at the site. At the very least, the Private Property sign should be removed from the site, and an appropriate Town sign -- designating the site as a Conservation Area and stating permissible uses (if any) -- should be in-stalled.

OCEANFRONT

Matunuck Area

*12.	Site:	Matunuck Beach Road Extension
	Location:	Matunuck Point
	Water Area:	Block Island Sound
	Ownership:	?
	Assessor's Plats:	93-4 and 93-1
	Recorded Plats:	See PB9 / 675, PB6 / 454, PB6 / 458, and LE87 / 230
	Size:	?
	Condition:	Good shape, accessible
	Parking:	Public lot at Deep Hole Public Fishing Area
	Signage:	Marked "Private Do Not Enter."
	Description:	The extension of Matunuck Beach Road (easterly of its intersection with the
	·	beginning of Ocean Avenue) is a dirt road that dead-ends at a rocky sea wall;
		beyond that point, the roadway apparently continues in a northerly direction,
		passing over an area of sand and rocks and a stretch of grass before intersecting

again with Ocean Avenue. On the two Assessor's Plats as well as all four of the Recorded Plats, Matunuck Beach Road is shown as extending east from the beginning of Ocean Avenue, then continuing north along the shoreline (overlapping the mean high water mark at one point), and finally intersecting again with Ocean Avenue. The Town's Street Inventory identifies Matunuck Beach Road as a Town owned road and describes it only in very general terms -- i.e., "from Route 1. south then east to Ocean Avenue."In the deed conveying seven of the 12 lots that border the extension of Matunuck Beach Road -- i.e., Lots 17, 19, 20, 21, 22, 24, and 25 -- the lots are described as being the same as those originally set out on the 1925 Plat of Matunuck Point (see PB6 / 458); as already noted, this plat, like the others, shows Matunuck Beach Road as extending east and north along the shoreline. The deed from Howard to Gaddick (see LE102 / 315), which conveyed Lot 18, also references the 1925 Plat of Matunuck Point; moreover, it specifically describes the lot as being bounded northerly by the southerly side of Matunuck Beach Road. The deed from Thornton to Hayward (see LE228 / 335), which conveyed Lot 18, also references the 1925 Plat of Matunuck Point; moreover, it specifically describes the lot as being bounded easterly by the westerly line of Matunuck Beach Road (and occupying much of "the waters of a small pond"). The deed from Boyd (see LE123 / 64), which conveyed Lot 164, also references the 1925 Plat of Matunuck point; moreover, it specifically describes the lot as being bounded easterly by the westerly line of Matunuck Beach Road. The deed from Potter to Potter (see LE369 / 8), which conveyed Lot 160, also references the 1925 Plat of Matunuck Point and further references the 1960 "Plat of Lots 17, 18, and 161, Matunuck Point Beach Club" (see LE87 / 230). As noted earlier, this 1960 plat, like the others, shows Matunuck Beach Road as extending along the shoreline. The Potter deed also describes the lot as being "diminished by the erosion of the Atlantic Ocean" and as being bounded by a curved line representing the southerly line of Ocean Avenue and the easterly line of Matunuck Beach Road. The one remaining lot of the twelve that border the extension of Matunuck Beach Road is Lot 161. This lot -- originally numbered 16' (?) -- was conveyed from Whipple to the Matunuck Point Beach Club in 1940 (see LE52 / 305). Also conveyed by the deed were several other lots --- identified, by their original lot numbers, as Lot 83 (w/Community House), Lots 82, 84, 182, and 183 (w/tennis court and bowling green), Lot 15 and Lot 60' -- as well as "all roads as shown on said plat, land described on said plat as 'access to pond for all interior lots,' [and] two pass ways, marked on said plat, one leading to ocean and one leading to pond." Lot 15 is shown on the 1925 Plat of Matunuck Point as a "Private Bathing Beach" situated on the east side of the Matunuck Beach Road extension. Since this lot does not appear on the Assessor's Plat, it may have been "lost" due to the erosive effects of the ocean over the years. As evidenced by the land evidence records, it appears that the extension of Matunuck Beach Road remains intact, as a roadway, at least on paper. Actually, it appears that the southeast corner of the roadway now partly overlaps the mean high water mark between Lot 22 and Lots 160 / 161. The legal status of the roadway remains a bit ambiguous. Although the Matunuck Beach Club deed specifically included "all roads" shown on the 1925 Matunuck Point Plat, Ocean Avenue, which appears on the plat, is clearly a Town-owned road, accepted on 7/14/24. It therefore seems quite

possible that the extension of Matunuck Beach Road is also owned by the Town. The situation needs to be pursued further.

Green Hill Area

*13 Site: Helichrysium Drive Location: Off Charlestown Beach Road West, on Green Hill Beach Block Island Sound Water Area: Ownership: ? Assessor's Plat: 95-3, Lot 5 Recorded Plats: See LE43 / 493 20' wide Size: Condition: Unclear, may be accessible Some parking available nearby in Charlestown Beach public lot Parking: Signage: No sign at site Description: A 20' wide parcel of land situated on the south side of Charlestown Beach Road West between two privately owned, undeveloped lots. There is no property index card for Lot 5, indicating that its status is "owner unknown." A review of the Assessor's Plat shows that the lot is directly across the street from (i.e., south of) the east edge of Lot 40, which is the site of house #994.Based on this information, it appears that Lot 5 consists partly of a vegetated sand dune and partly of an open beach area. On or near the lot is a wooden walkway, in good condition, that leads over the dune and to the beach. If the walkway is on Lot 5, it affords an excellent opportunity for public shoreline access from Charlestown Beach Road West; if the walkway is not on Lot 5, then the site currently affords no (environmentally sound) opportunity for access from the road to the beach.Lot 5 on the Assessor's Plat is identified on the 1924 Recorded Plat, referenced above, as "Helichrysium Drive" and shown as extending south from the "Public Highway" (i. e., Charlestown Beach Road West) to the water. The deeds to the two lots that abut Lot 5 (Lots 4 and 6) both describe the parcels as being bounded by "Helichrysium Drive." A 1937 deed from Bliss to Mee (see LE50 / 320), conveyed a number of lots and a (previously discussed) ROW from a 1936 plat (see PB8 / 55; also see discussion under site No. *8). As stated in the deed, Bliss also conveyed to Mee "all the rights, title and interests which I have or possibly may have in and to all streets, highways, parks, and commons [as set forth on earlier plats of the area] reserving, however, any and all my rights and the several and respective rights of [others] in and to Helichrysium Drive ...Statice Drive, Mascagni Drive, Daybreak Drive, Dawn Drive ... [and] a right-of-way bordering on the southerly line of Ward's Island."While it may therefore seem that Helichrysium is private, it's important torecognize that Statice, Daybreak, and Dawn Drives were all designated as public ROW's by the RI Coastal Resources Management Council in 1990 (see Sites No. 32, 33, and 34). Accordingly, it seems possible that Helichrysium Drive may have some sort of public status.

NARROW RIVER

*14.

Site: Location: Water Area: Ownership: Assessor's Plat : Recorded Plats: Size: Condition: Parkinq: Siqnaqe: Description:

Harcourt Avenue Off Middlebridge Road, just north of the Torrey Road intersection Narrow River Town Road (accepted 12/15/75) 35-4 See LE43 / 380 ? Good shape, accessible Unclear, not posted No sign at site The paved portion of Harcourt Avenue leads to a short grass strip and a set of steps that provide convenient access down to the edge of the river. On 12/15/75, Harcourt Avenue, as delineated on the (1925) Recorded Plat (LE43 / 380), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The plat shows Harcourt Avenue as extending east to the mean high water mark of the river; however, the plat also shows a narrow strip of land overlapping the seaward (easterly) end of the street and running north and south along the river bank. The plat identifies the inland (westerly) edge of this strip as "Top of Bank and Easterly Boundary of Lots Fronting On River," and the strip itself as "Beach Reserved For The Use Of Lot Owners On The Plat." The strip is shown as being open-ended at the top (north) and bottom (south), inferring that it continues along the river in both directions. All streets shown on the plat, including Harcourt Avenue, are shown as extending through the strip of land and to the mean high water mark. Yet the Assessor's Plat (35-4), shows that there is a narrow strip of land -- identified as Lot 110 - situated between the seaward (easterly) ends of Harcourt, Wakefield, Kingston, and Edwards Avenues and the mean high water mark of the river. There is no property index card for Lot 110, however, indicating that its status is "owner unknown."It is thus unclear whether Harcourt Avenue runs through the narrow strip of land, thereby affording direct public access to the mean high water mark, or whether Harcourt Avenue intersects with a "private" strip of shore front property (i.e., Lot 110), thereby affording no public shoreline access opportunities at the site. It should be noted that the State of Rhode Island is the owner of three lots on an adjacent plat (see LE44 / 155) that also features the narrow strip of land running along the shore front. (The lots comprise the "Narrow River Public Ramp and Fishing Area"; see site No. 39.) Clearly, the State site, in a practical sense, provides direct access to the river. As such, it appears that the narrow strip of "private" land either does not exist at the site or is of no significance at the site. (Indeed, if the "beach" is reserved for the use of lot owners on the two plats, then the State, as a lot owner, would apparently be entitled to use the strip, and the whole issue of public vs. private rights would be rendered moot.) The ambiguity

associated with the end of Harcourt Avenue needs to be clarified, especially in view of the fact that the site appears to be well-suited for use as an access way.

*15.	Site: Location: Water Area: Ownership: Assessor's Plat : Recorded Plats: Size: Condition: Parking: Siqnage: Description:	Wakefield Avenue Off Middlebridge Road, just north of the Torrey Road intersection Narrow River Town Road (accepted 12/15/75) 35-4 See LE43 / 380 ? Good shape, accessible No parking at end of road; rest of road is not posted No sign at site The paved portion of Wakefield Avenue leads to a short grass strip, a gently sloping, grass-covered bank, and a small dock on the river. On 12/15/75, Wakefield Avenue, as delineated on the (1925) Recorded Plat (found in LE43 / 380), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The ambiguity associated with the end of Wakefield Avenue is exactly the same as that associated with the ends of Harcourt, Kingston, and Edwards Avenues (see Harcourt Avenue, site No. *14, for full description). As such, clearing up the status of one will likely clear up the status of all four.
*16.	Site: Location: Water Area: Ownership: Assessor's Plat : Recorded Plats: Size: Condition: Parkinq: Signaqe: Description:	Kingston Avenue Off Middlebridge Road, just north Torrey Road intersection Narrow River Town Road (accepted 12/15/75) 35-4 See LE43/380 ? Good shape, accessible Unclear, not posted No sign at site The paved portion of Kingston Avenue leads to a short grass strip, a small sea wall, a set of steps leading down to the edge of the river, and two docks. On 12/15/75, Kingston Avenue, as delineated on the (1925) Recorded Plat (found in LE43 / 380), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The ambiguity associated with the end of Kingston Avenue is exactly the same as that associated with the ends of Harcourt, Wakefield, and Edwards Avenues (see Harcourt Avenue, site No. *14, for full description). As such, clearing-up the status of one will likely clear up the status of all four.
*17.	Site:	Edwards Avenue

	Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Siqnage: Description:	Off Middlebridge Road, just north of the Torrey Road intersection Narrow River Town Road (accepted 12/15/75) 35-4 See LE43 / 380 ? Fair shape, accessible Unclear, not posted No sign at site The paved portion of Edwards Avenue leads to a short grass strip, a small, gently sloping, grass-covered bank, a pile of brush, and a small rock wall; there's also a vestige of a small dock at the site.On 12/15/75, Edwards Avenue, as delineated on the (1925) Recorded Plat (found in LE43 / 380), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The ambiguity associated with the end of Edwards Avenue is exactly the same as that associated with the ends of Harcourt, Wakefield, and Kingston Avenues (see Harcourt Avenue, Site No. *14, for full description). As such, clearing up the status of one will likely clear up the status of all four.
*18.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size: Condition: Parking: Siqnage: Description:	Cook Avenue Off Middlebridge Road, just north of the Torrey Road intersection Narrow River Town Road (accepted 12/15/75) 43-1 See LE44 / 155 ? Good shape, accessible Unclear, not posted Marked "No Trespassing" A dirt road leading to a small dirt lot, a patch of grass, a rock wall, and a small sand and gravel ramp; there is also a vestige of a small dock at the site. On 12/15/75, Cook Avenue, as delineated on the (1926) Recorded Plat (found in LE44 / 155), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The 1926 plat shows Cook Avenue as extending east to the west edge of a narrow strip of land that extends north and south along the river. Although this plat does not identify or describe the strip, it does show it as being open-ended at the top (north), inferring that it continues along the river in a northerly direction. As noted in the description for Harcourt Avenue (see site No. *14), a 1925 plat, which lays out the area adjacent to and north of this 1926 plat, shows the strip and identifies it as "Beach Reserved For The Use Of Lot Owners On The Plat." Since the 1925 plat shows the strip as being open-ended at the top (north) and bottom (south), it seems clear that it is the same strip shown on this 1926 plat. As is the case with Assessor's Plat 35-4, Assessor's Plat 43-1 shows the strip as being situated between the seaward (easterly) ends of Cook, Pollock, and Mitchell Avenues and the mean high water mark of the river; the plat also identifies the strip as Lot 110, the status of which is "owner unknown" according to the Town's records. As is the case with Harcourt, Wakefield, Kingston, and Edwards Avenues,

the land evidence records suggest that the seaward (easterly) end of Cook Avenue may border a private strip of shore front property, not the mean high water mark of the river. But (in contrast to the other sites), the Town's Street Inventory describes Cook Avenue as extending "from Middlebridge Road east to the Pettaquamscutt River." Moreover, the State's ownership of the lots and road-ends comprising the "Narrow River Public Boat Ramp and Fishing Area" cast further doubt on the significance of Lot 110 (see "Harcourt Avenue," site No. *14, for full description). Thus, for the most part, the ambiguity associated with the end of Cook Avenue is the same as that associated with the ends of Harcourt, Wakefield, Kingston, and Edwards Avenues. As such, clearing up the status of one will likely clear up the status of all five.

*19.	Site:	Ash Street
	Location:	Off Middlebridge Road, just north of Middlebridge Bridge.
	Water Area:	Narrow River
	Ownership:	Town Road (accepted 12/15/75)
	Assessor's Plat:	43-4 (?)
	Recorded Plats:	See LE48 / 368
	Size:	?
	Condition:	Accessible to the inland edge of the wetland area; inaccessible from the inland
		edge of the wetland area to the mean high water mark of the river.
	Parking:	Unclear, not posted
	Siqnage:	No sign at site
	Description:	The paved portion of Ash Street leads to a stretch of grass that borders extensive wetlands area along the river. The Assessor's Plat shows Ash Street as extending from Middlebridge Road to the mean high water mark of the river, with no reference to any marsh land. On 12/15/75, Ash Street, as delineated on the (1933) Recorded Plat (found in LE48 / 368), was deeded from Beauregard to the Town of South Kingstown (see LE120 / 239). The (1933) Recorded Plat, along with deeds to adjacent properties (see LE364 / 57 and LE72 / 344), indicate that Ash Street is a platted roadway to a point that is approximately halfway between Middlebridge Road and the mean high water mark of the river; and that it extends beyond that point as a stretch of unclaimed "marsh" all the way to the mean high water mark of the river.So, the only real ambiguity associated with the end of Ash Street is the legal status of the marsh area. If the strip of (unclaimed) marsh is public (which it seems to be), then Ash Street does afford a legal means of access to the river. In a practical sense, of course, any such use is clearly precluded by the environmentally sensitive status of the marsh.
*20.	Site: Location: Water Area: Ownership: Assessor's Plat: Recorded Plats: Size:	Grant Avenue Off Middlebridge Road, just north of Middlebridge Bridge Narrow River Town Road (accepted 9/13/48 43-4 See LE46 / 435 and PB11 / 775 ?

Condition: Parkinq: Siqnaqe: Description: Overgrown and inaccessible Unclear, not posted No sign at site

From Middlebridge Road east, Grant Avenue exists as a paper street. The first part of this "street" is covered with trees and brush; beyond this overgrown upland area, there is an extensive wetlands bordering the river. The (1930) recorded plat (found in LE46 / 435) shows Grant Avenue as extending east to the edge of a "marsh."In 1934, the so-called "Beauregard Marsh" -- specifically, the portion of the marsh south of the southerly line of the extension of Grant Avenue - was sold to Patenaude (LE48 / 489); this same portion of the marsh was sold to Reed in 1937 (see LE50 / 253) and again to Reed in 1965 (see LE96 / 130). Subsequent conveyances of lots originally situated south of this marsh area have incorporated adjacent portions of the marsh up to the southerly line of the extension of Grant Avenue (see for example LEI17 / 40, conveying Lot 10; and Le193 / 315, conveying Lot 7). The conveyance of Lot 15 to Dick in 1971 (see LE109 / 41) incorporated the portion of the marsh north of the northerly line of the extension of Grant Avenue. On 9/13/48, the Town Council accepted Grant Avenue from Middlebridge Road to the "Narrow River Marsh" (see TC24 / 437), as shown on the (1948) Recorded Plat (found in PBII / 775). Yet the Assessor's Plat shows Grant Avenue as extending east to the mean high water mark of the river. If the stretch of (unclaimed) marsh at the end of Grant Avenue is public (which it seems to be), then Grant Avenue apparently provides a legal means of access to the river. In a practical sense, of course, any such use is clearly precluded by the environmentally sensitive status of the marsh.

APPENDIX D

Mooring Fields in South Kingstown





















APPENDIX E

South Kingstown Wetlands








APPENDIX F

Harbor Management Plan / Tidal Waters



APPENDIX G

Boats and Waterways Ordinance

Chapter 4

BOATS AND WATERWAYS ORDINANCE*

Article I. In General

	Article I. In General
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Sec. 4-2.	Definitions.
Sec. 4-3.	Jurisdiction and authority.
Sec. 4-4.	Operation near public bathing areas.
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Article II. Harbormaster

Sec.	4-31.	Appointment; assistant harbor-master.
Sec.	4-32.	Compensation.
Sec.	4-33.	Authority.
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Sec.	4-35.	Mooring specifications for South Kingstown tidal waters.
Sec.	4-36.	Designation of moorings in South Kingstown tidal waters
Sec.	4-37.	Appeal of decision by the harbormaster.
Sec.	4-38.	Posting regulations.
Sec.	4-39.	Reporting and review of operation.

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^{*}Editor's note—An ordinance adopted March 9, 1992, amended the provisions of Ch. 4, Arts. I and II, relative to boats and watercraft to read as herein set out. Former history notation has been retained and appended to provisions enacted March 9, 1992. The Code Comparative Table contains the disposition of provisions included in Ch. 4 prior to March 9, 1992.

Waterfrait to read as neven set out. Former instory notation has been retained and appended to provisions enacted March 9, 1992. The Code Comparative Table contains the disposition of provisions included in Ch. 4 prior to March 9, 1992. Charter reference—Authority of town council to regulate the speed, control, etc., of all vessels on the public waters, § 3122(F). Cross references—Administration generally, Ch. 2; coastal pond special area management plan action committee, § 2-38; waterfront advisory commission, § 2-51.

State law references—Waters and navigation, G.L. 1956, Title 46; regulation of boats, G.L. 1956, § 46-22-1 et seq.; local regulation of boats, G.L. 1956, § 46-22-14, superceded by special regulatory powers for Town of South Kingstown, G.L. 1956, § 46-4-6.3.

Sec. 4-38. Posting regulations.

The harbormaster will post and maintain on or adjacent to all town floats, docks and launching sites, and other feasible locations an adequate digest of those portions of this ordinance relating to the operation of vessels upon the waters under jurisdiction of the harbormaster. (Code 1971, § 6-25; Ord. of 3-9-92)

Sec. 4-39. Reporting and review of operation.

The harbormaster shall submit a monthly status report to the waterfront advisory committee and the town manager, and shall make every effort to attend the meetings of the committee.

In addition, the harbormaster shall meet jointly with the town manager and waterfront advisory committee in the month of October each year to review the preceding year's operation. (Code 1971, § 6-26; Ord. of 3-9-92)

April 1, 1992. Notwithstanding this requirement, holders of such moorings not licensed by September 1, 1992, shall void all rights to a mooring space.

(c) Any mooring not registered September 1, 1992, will be considered abandoned.

(8) The annual license fee for moorings regulated by this ordinance shall be established by resolution by the town council. The harbormaster shall collect such fees from each applicant for each license issued under the provisions of subsection (5) of this section.

(9) If a licensee, or his/her agent, or any other person shall place a mooring or maintain anchorage in the tidal waters of South Kingstown elsewhere than designated, the harbormaster may remove, or cause to be removed, the mooring or vessel, or both at his/her discretion and may charge the expense of so doing to the person so placing the mooring or maintaining anchorage in a spot other than that designated by the harbormaster.

(10) Only moorings which were in place as of July 15, 1991, may be eligible for licensing. The approval of additional moorings will only be considered following the adoption of the Harbor Management Plan as approved by the appropriate state agencies. However, waterfront property owners shall be allowed one mooring in reasonable proximity to their property in accordance with all requirements of this chapter.

(11) A mooring license is not transferable to a new owner when a boat is sold.

(12) A mooring space relinquished by failure to apply for a mooring license annually voids all rights to a mooring space.

(13) A mooring space or any part thereof shall not be sublet or assigned. No person shall cause any vessel to be attached to any mooring unless the vessel is described in the mooring application and the licensee is the registered owner or registered owner has permission from harbormaster to moor a guest for a period not to exceed two (2) weeks per guest vessel. (14) If a mooring will be unoccupied for more than thirty (30) consecutive days during the boating season (from June 1 to October 1) without notifying the harbormaster, the mooring shall be considered abandoned. A mooring shall not be considered abandoned provided the mooring owner notifies the harbormaster that he/she will be unable to use the assigned mooring space because of illness, extended vacation, or any other reason deemed acceptable to the harbormaster. The maximum period that a person may hold a mooring space without use shall be one (1) year provided that the license fee is paid.

(15) All moorings in waters under the town's control shall be inspected at least once every three (3) years by a qualified inspector. If as the result of such inspection the qualified inspector shall determine that any chain, shackle, swivel or other piece of mooring tackle has become warped or worn by one-third of its normal diameter, all such chain, shackle, swivel or other piece of mooring tackle shall be replaced accordingly. Failure to make such replacement shall be grounds for revocation of mooring registration by the harbormaster and such tackle shall be removed by the harbormaster at owner's expense. This inspection proof must accompany mooring application every three (3) years and is at the cost of licensee, not the town.

(16) A list of qualified inspectors shall be maintained by the waterfront advisory committee, and will be available in the town clerk's office. (Code 1971, § 6-23; Ord. of 11-9-87(1); Ord. of 12-21-87; Ord. of 3-9-92; Ord. of 3-22-93; Ord. of 6-10-02)

Sec. 4-37. Appeal of decision by the harbormaster.

Anyone aggrieved by the action of the harbormaster in his/her enforcement of this ordinance, may appeal the harbormaster's decision to the town council, but not before fully informing the town manager of his/her grievance, and obtaining a recommendation from the waterfront advisory committee.

(Code 1971, § 6-24; Ord. of 3-9-92)

Supp. No. 4

brought into compliance by April, 1994. New moorings must comply before the initial license is issued. The specifications of 4-35(7) must be met by all moorings on or before April 1, 1992. (Code 1971, § 6-6; Ord. of 11-9-87(1); Ord. of 12-11-89; Ord. of 3-9-92; Ord. of 7-14-97)

Sec. 4-36. Designation of moorings in South Kingstown tidal waters.

(1) The harbormaster, in coordination with the waterfront advisory committee, shall assign all moorings and designate locations in the tidal waters of the town in accordance with the provisions of this ordinance and the requirements of the boats (Title 46-22, RIGL, Regulation of Boats). Such moorings shall conform to the specifications contained in section 4-35. Moorings shall be located in the Mooring Fields which are designated as Mooring Fields A—G, a written description and map of these are kept in the town clerk's office.

(2) Any mooring now in position in the tidal waters of South Kingstown may be ordered moved by the harbormaster, if in his/her judgment such removal may be necessary.

(3) Until such time that a mooring holder is required to comply with the specifications found in section 4-35, the harbormaster is empowered to require that tackle be upgraded for public safety protection.

(4) The harbormaster shall designate upon a map of the tidal waters of the town the locus of each mooring and to such map shall affix or append a list or key designating the name and address of the owner or agent of the owner of each vessel and the size and type thereof. The harbormaster shall file and keep current this map in the town clerk's office and the public safety building. He/she shall also maintain a currently correct copy thereof in a place reasonably accessible to mariners and the waterfront advisory committee for their convenience in consulting same during when the town clerk's office would not normally be open. He/she shall, on or before July 1 of each year, make a complete and accurate revision of both master maps.

(5) The harbormaster shall keep a detailed description of each mooring including its date of installation and subsequent inspections, its locus keyed on the map, the owner or agent's name, telephone number, home and business address, and the name, length and rig of the vessel.

(6) The harbormaster shall maintain two (2) mooring assignment waiting lists: a South Kingstown resident mooring assignment waiting list and a nonresident mooring assignment waiting list. A South Kingstown resident shall mean any person who owns property and is a taxpayer in South Kingstown or is a registered South Kingstown voter. All assignments of mooring space shall be made by the harbormaster. At such time as any space becomes available within South Kingstown tidal waters, the harbormaster shall first determine which mooring assignment waiting list is to be used to fill the vacancy. Mooring assignments shall be based on a 3:1 resident to nonresident allocation ratio for available mooring space. The person whose name appears next on the proper list shall be offered the available space. Further, the mooring space shall be assigned to the person who owns the vessel of appropriate size for the time. If the available space is more than adequate for a vessel, the owner of such vessel shall be granted such space, but the assignment shall be considered temporary and the vessel so assigned shall be moved to a more appropriate space at the first available opportunity. If the applicant shall refuse the grant of a mooring space, his/her application shall be placed last on the waiting list. Notwithstanding any of the provisions of the foregoing, the harbormaster shall have the right to relocate vessels which have an assigned mooring space.

- (7) (a) The harbormaster shall issue licenses properly keyed to such map. The license will show the mooring specifications. A mooring license will expire on June 1 in each succeeding year after its issuance. Failure to reapply for a mooring license by June 1 shall void all rights to a mooring space. Incomplete applications will not be accepted. All applications must be accompanied by the appropriate fee. Fees are nonrefundable.
 - (b) Transition rule: All currently unlicensed moorings must be licensed by

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21 to 26	150
27 to 36	300
37 to 44	400
45 to 55	500
56 and over	(2) 500 lbs. on bridle
	or 1500 lbs. Subject
	to Harbormaster rul-
	ing.
Chain size:	

(2) Chain size:(a) Heavy chain:

Length of Bo (feet)	Minimum bat Diameter (inches)
Up to 20	5/8
21 to 26	3/4
27 to 36	1
37 to 44	1
45 to 55	1

(b) Light chain:

Length (feet)	of	Boat	Minimum Diameter (inches)
Up to 26			3/8
27 to 36			1/2
37 to 44			5/8
45 to 55			5/8

(c) Pennant diameter:

Length of Boat (feet)	Nylon only– Minimum Diameter (inches)
Up to 20	5/8
21 to 26	3/4
27 to 36	7/8
37 to 44	1
45 to 55	11/4

- (3) Length of chain:
 - (a) Heavy chain: Shall equal one and one-half (1.5) times the maximum depth of water.
 - (b) Light chain: Shall equal the maximum depth of water.
- (4) Length of pennant. Shall equal two and one-half (2.5) times the distance from the

water to the bow chock plus the distance from the bow chock to the mooring cleat or post.

- (5) All pennant lines running through a chock or other objects where chafing may occur shall have chafe guards.
- (6) The pennant shall attach to the light chain at the base of the buoy.
- (7) Buoys shall be attached between the light chain and the pennant, clearly visible above any high tide level at all times. The mooring buoys shall be rigid and spherical or cylindrical, a minimum of eighteen (18) inches in diameter and white with a blue band. Mooring number and weight of the mushroom anchor shall be printed where they will be visible at all times. Numbering and lettering shall be at least three (3) inches high.
- (8) All mooring tackle shall also be equipped with a swivel attached between the heavy and light chain. The swivel shall be one size larger than the size of the light chain.
- (9) Use of wooden stakes (for example, stakes put in to prevent ice damage to mooring tackle) shall not be permitted during the boating season, June 1 to October 1.
- (10) The harbormaster shall determine conformance with mooring specifications. In the event that a vessel is found to be secured to a mooring that does not meet the mooring standards, the harbormaster shall, by written notice, order the owner to comply. If such instances of noncompliance continue for more than three (3) weeks, the harbormaster shall order the boat removed at the owner's expense, and the mooring shall be transferred to the next eligible applicant on the waiting list. However, the boat owner found to be in noncompliance may appeal to the town council consistent with the provisions of section 4-37.

Transition Rule: The specification of section 4-35 shall be effective April 1, 1992. Moorings in existence on that date not in conformance with these specifications excluding section 4-35(7) must be

BOATS AND WATERWAYS ORDINANCE

Fine

Section of Ordinance

4-8-10	Numbering in accordance with 46-22-4	
1010	GLRI	50.00
4-8-11	Engine cutoff switch required	50.00
4-9	Pollution, discharge or dumping into	
	waters	100.00
4-10	Excessive noise	50.00
4-12	Prohibited use of town floats and docks	50.00
4-13	Obstructing passage of vessels	50.00
4-14	Rights of way to the water	50.00
4-15-1	House boats and floating businesses	
	prohibited	50.00
4-15-2	Pollution control requirements	100.00
4-17	Required equipment	50.00
4-18	Anchorage restriction	50.00

(Ord. of 5-10-93)

Sec. 4-24. Failure to act.

In the event the offender does not pay the fine as specified in section 4-22, then the offender shall have waived his right to dispose of the offense and a notice shall then be issued against the offender for his personal appearance before the Fourth Division Court on a date set by the chief of police, or his designee, for the disposition of the offense.

(Ord. of 5-10-93)

Secs. 4-25-4-30. Reserved.

ARTICLE II. HARBORMASTER*

Sec. 4-31. Appointment; assistant harbormaster.

The town manager shall appoint upon consideration of a recommendation from the waterfront advisory committee, a harbormaster and assistant harbormasters who shall serve at the pleasure of the town manager. The town manager in his/her capacity as director of public safety may duly appoint the harbormaster to function in the capacity of peace officer to investigate and enforce provisions of state law and the provisions of this ordinance. The harbormaster, when duly appointed by the town manager to serve as a peace

*Charter reference-Town Manager to appoint harbormaster, § 3132(F).

officer, shall have the authority upon the approval of the chief of police, to pursue criminal prosecution of any violation of state law or the provisions of this ordinance.

50.00 (Code 1971, § 6-17; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-32. Compensation.

The salary of the harbormaster and assistant harbormasters shall be an amount set by the town manager.

(Code 1971, § 6-18; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-33. Authority.

The harbormaster shall have the full power of state and local laws and authority within the jurisdiction fixed by law to enforce regulations and give directions regarding anchorage, management and control of all vessels within the waters of the town.

(Code 1971, § 6-19; Ord. of 3-9-92)

Sec. 4-34. Removal of vessels.

The harbormaster may remove for cause, from time to time, from any public wharf within the waters of the town, any vessel not engaged in receiving or discharging cargo or any vessel not anchored or moored according to his/her directions in the waters under his/her jurisdiction or any vessel which is unnumbered or unlicensed. The harbormaster may also determine the extent, time, and manner or accommodation respecting the position of vessels which should be extended by the owners or masters thereof to each other and to require such accommodation to be extended. All of the above shall be at the owner's expense.

(Code 1971, § 6-21; Ord. of 11-9-87(1))

Sec. 4-35. Mooring specifications for South Kingstown tidal waters.

(1) Mushroom anchor:

Length of Boat	Minimum				
(feet)	Mushroom (lbs.)				
Up to 20	100				

BOATS AND WATERWAYS ORDINANCE

Section of Ordinance

Fine

Personal water craft (jet skis, etc.):

4-8-2	Operation at night prohibited	50.00
4-8-3	Prohibited maneuvers	50.00
4-8-4	Operator under 16, unsupervised, unqualified	50.00
4-8-5	Owner allowing person under 16 to operate	50.00
4-8-6	Operation in restricted area	50.00
4-8-7	Operation from shore restrictions	50.00
4-8-8	Personal flotation device to be worn	50.00
4-8-9	Reckless operation	100.00

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Sec. 4-19. Penalties.

(1) Every owner, master, agent or person in charge of any vessel, surfboard, or personal water craft, or any water skier who shall neglect or refuse to obey the directions of the harbormaster or other enforcement agent of a local jurisdiction in matters within their authority to direct and every person who shall resist or oppose such harbormaster or other authority in the execution of his/her duties or shall violate any of the provisions of this chapter or regulations pursuant thereto shall, upon conviction therefor, be fined not exceeding one hundred dollars (\$100.00) for each offense. Each day such neglect or refusal to obey shall continue after notice thereof given by the harbormaster or other authority to any owner, master, agent or other person in charge of a vessel, water craft or mooring shall constitute a separate offense.

(2) Any person who shall remove from a location assigned by the harbormaster any mooring belonging to another without authority from or under direction of the harbormaster shall, upon conviction thereof, be fined as stated above.

(3) Any individual violating any provision of this chapter may be cause for the harbormaster's refusal to allow such individual with his/her vessel in the waters under the jurisdiction of the harbormaster for such period of time as may be determined by the harbormaster or the town council together with the necessary court action in cases of violation of state or federal law.

(Code 1971, § 6-15; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-20. Complaints.

All complaints for violation of this chapter shall be made to the harbormaster in writing, with a copy sent to the town manager. (Code 1971, § 6-16; Ord. of 3-9-92)

Sec. 4-21. Payment without personal appearance.

The harbormaster, and assistant harbormaster and any other duly authorized law enforcement officer who charges any person with an offense as set out in this chapter shall issue a summons for

said offense, providing the offending person with a form which, when properly executed by the officer and offender, will allow the offender to dispose of the charge without the necessity of personally appearing before the District Court of the State of Rhode Island. This section shall apply to residents and nonresidents. (Ord. of 5-10-93)

Sec. 4-22. Method of payment.

If the offending party desires to dispose of the charge without personally appearing before the district court he/she may execute the form indicated and return it to the South Kingstown Police Department not later than thirty (30) days from the date of the summons either by mail or by delivering it to the police department together with a certified check or money order in an amount indicated by the fine schedule on said form.

(Ord. of 5-10-93)

Section of

4

4

Sec. 4-23. Violations to which applicable and schedule.

The following violations may be handled administratively through the method as prescribed in this chapter; provided however, this list is not exclusive and jurisdiction may be conferred on the District Court of Rhode Island with regard to other violations.

VIOLATIONS SCHEDULE

Ordinance		Fine
4-4	Operation near public bathing areas	\$ 50.00
4-5-1	Reckless or negligent operation	100.00
4-5-2	No wake zone Upper Pond	50.00
4-5-3	No wake zone Potter's Channel/High Pt.	50.00
4-5-4	No wake zone Jerry Brown Farm/ Camp Fuller	50.00
4-5-5	No wake zone Narrow River	50.00
4-5-6	No wake zone Green Hill Pond	50.00
4-6	Passing other vessels (reasonable care)	50.00
4-7	Obedience to orders of harbormaster, etc.	100.00
4-8-1	Water skiing violations	50.00

(2) No person shall store a vessel, vehicle or structure on a designated public right-of-way to the water as defined by the CRMC or the Town of South Kingstown.

(3) Any person in violation of this section shall be subject to a fine in accordance with section 4-19 of this chapter.

(4) Any vessel, vehicle, structure or debris in violation of this section shall be subject to removal at the direction of the harbormaster, any assistant harbormaster or any police officer. The cost of such removal shall be the responsibility of the owner of said vessel, vehicle, structure or debris.

(Ord. of 3-9-92; Ord. of 6-10-02)

Sec. 4-15. Houseboats and floating businesses.

(1) Houseboats, meaning boats designated primarily for human habitation and which may be used as homes and are not self propelled, and floating businesses will not be permitted to moor, anchor or tie-up within the waters under the jurisdiction of the harbormaster.

(2) All people who use motor boats or sailboats as residences shall contact the harbormaster within thirty-six (36) hours of mooring to ensure compliance with harbor regulations regarding pollution as outlined in section 4-9 of the current South Kingstown Boats and Waterways Ordinance: The owners or operators of all vessels operated, moored, or anchored within the waters and the jurisdiction of the harbormaster shall not permit acts contrary to the public health or sanitary regulations including such laws, ordinances, rules, and regulations as shall be promulgated by federal, state or local authority.

(Code 1971, § 6-13; Ord. of 3-9-92)

Sec. 4-16. Regattas, races, etc.

(1) In addition to the provision of section 46-22-13 of the General Laws of the State of Rhode Island, any regatta, race, marine parade, tournament or exhibition shall be held on waters under the jurisdiction of the harbormaster only after filing notice and a chart of the course with the harbormaster at least ten (10) days in advance.

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(2) Racecourses shall generally be laid out to avoid crossing the main channel of Point Judith Pond as designated by federal buoyage.

(3) Sailing competition in the Upper Point Judith Pond (the entire area north of Can Buoy # 20) is prohibited.

(Code 1971, § 6-14; Ord. of 3-9-92)

Sec. 4-17. Required equipment.

Every vessel entering the water and harbor areas of the Town of South Kingstown shall be equipped as required by Title 46-22 (Regulation of Boats) of the General Laws, as amended, and all similar federal laws, rules and regulations. Consistent with Title 46-22 (Regulation of Boats) of the General Laws, as amended, the harbormaster shall have the authority to enforce all provisions of Title 46-22.

(Ord. of 3-9-92)

Sec. 4-18. Transient anchoring and anchorages.

(1) A vessel may anchor on its own anchor in the coastal waters and harbor areas of the town except in federal navigation channels, navigation fairways, mooring fields, swimming areas, rightsof-way ingress and egress areas, and launching ramp areas, for a period not to exceed thirty-six (36) hours. Written consent of the harbormaster is required for extended visits of more than thirtysix (36) hours. No vessel anchored under such conditions shall be left unattended. Owners/ operators of such vessels may go ashore but must be available to tend the vessel in the event of heavy weather. It shall be the vessel owner's and/or operator's responsibility to remain clear of all moored vessels and other structures.

(2) Transient anchorages. The following area is established for use as transient anchorage areas:

a. Smelt Brook Cove.

b. Gardner to Plato Islands. (Ord. of 3-9-92)

amount equal to the cost of repairing such damage as determined by the harbormaster and town manager.

(Code 1971, § 6-11; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-13. Obstructing passage of vessels.

(1) No warps, lines or fishing gear shall be in or passed across any channel or dock so as to obstruct vessels passing along the same.

(2) Stakes shall not be driven to be used for mooring any vessel or boat, or for tying up any fish, lobster or bait car unless in the judgment of the harbormaster their use would not be an obstruction.

(3) Moorings shall not be located so that vessels or boats when lying to the same, shall block any channel or approach to any channel, or obstruct the approach to piers, docks or other moorings in the vicinity as indicated in section 4-36. (Code 1971, § 6-12; Ord. of 3-9-92; Ord. of 7-14-97)

Sec. 4-14. Rights-of-way to the water.

(1) No person shall block, barricade or in any way impede the public use of or access to designated public right-of-way to the water as defined by the RI CRMC or the Town of South Kingstown.

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Sec. 4-9. Pollution.

The owners or operators of all vessels operated, moored, docked, or anchored within the waters under the jurisdiction of the harbormaster shall not:

- Permit acts contrary to the public health or sanitary regulations including such laws, ordinances, rules and regulations as shall be promulgated by federal, state or local body in authority;
- (2) Discharge, rubbish, debris, garbage, raw sewage, dead fish or other offal upon or into the waters under jurisdiction of the harbormaster; or
- (3) Dump or pump petroleum products or hazardous materials onto or into the waters under the jurisdiction of the harbormaster.

(Code 1971, § 6-8; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-10. Excessive noise.

No operator or owner shall cause or allow excessive noise in the operation of a vessel nor shall such owner or operator allow excessive noise aboard such vessel when anchored, moored or docked. Unmuffled sound from engines, outboards or other machinery is not permitted except by permission of the harbormaster.

(Code 1971, § 6-9; Ord. of 11-9-87(1); Ord. of 3-9-92)

Cross reference—Operation of motor vehicles to create unnecessary noise prohibited, § 10-7.

State law reference—Muffling devices, G.L. 1956, § 46-22-8.

Sec. 4-11. Derelict boats, motors, etc.

(1) No derelict boats, motors, or piers, wharves or docks shall be allowed in or upon the town's waters or shores.

(2) No vessel of any kind whatsoever, which is in badly deteriorated condition or which is likely to damage private or public property or which might become a menace to navigation, shall be permitted to moor, anchor or dock in waters under

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the jurisdiction of the harbormaster. Any vessel which might become a menace to navigation may be ordered moved by the harbormaster.

(3) The harbormaster and a designated member of the waterfront advisory committee jointly shall determine whether any vessel is of unsightly appearance or in badly deteriorated condition and, if found so to be, shall take proper steps for removal of same. If the owner of any vessel or water craft so determined to be of unsightly appearance or in badly deteriorated condition shall fail to remedy such appearance or condition within a reasonable time, the harbormaster shall notify the owner of record of such vessel or water craft in writing and such owner shall thenceforth be subject to penalties as noted in section 4-19.

(Code 1971, 6-10; Ord. of 11-9-87(1); Ord. of 3-9-92)

Cross reference—Junked, dismantled or abandoned vehicles, § 11-16 et seq.

Sec. 4-12. Use of town-owned floats and docks.

(1) The maximum period which a boat may tie up to the town floats or docks shall be fifteen (15) minutes unless permission for additional time is obtained from the harbormaster.

(2) No repairs, other than emergency repairs of a minor nature, are permitted at or on town floats or docks.

(3) No fishing gear, equipment or any other matter shall be allowed to remain on the town floats or docks except during the actual operation of loading or unloading.

(4) No fish, bait or other marine life may be kept, cleaned or disposed of on the town floats or docks nor shall the same be disposed of in violation of section 4-9.

(5) There will be no soliciting from town floats, docks or adjacent waterfront property without permission of the harbormaster and the waterfront advisory committee.

(6) All persons injuring or damaging a town float or dock, or all persons liable therefor, shall within thirty (30) days reimburse the town in an

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police officer or constable of the town in enforcement of the provisions of this chapter. Such operator shall immediately upon being instructed by any police officer, constable or harbormaster of the town, comply with such lawful directions. (Code 1971, § 6-5; Ord. of 3-9-92)

Sec. 4-8. Water skiing and personal water craft (jet skis, etc.).

(1) No water skiing will be allowed in the Narrows, Upper Point Judith Pond, the Potter's Pond Channel or in designated areas of anchorages or moorings. No water skier or his/her boat shall approach any stationary or moving object closer than two hundred (200) feet, except as may be incidental to starting or finishing a run nor shall any water skier ski within any designated channels.

(2) No person may operate a personal water craft between the hours of one-half hour after sunset to one-half hour before sunrise.

(3) Personal water craft must be at all times operated in a reasonable and prudent manner. Maneuvers which unreasonably or unnecessarily endanger life, limb, or property, including, but not limited to weaving through congested traffic, or jumping the wake of another vessel unreasonably, shall constitute reckless operation of a vessel and are prohibited.

(4) No person shall operate a personal water craft on the waters of the town unless he or she has passed a boating safety education program as approved by the director of the Rhode Island Department of Environmental Management except as provided for under section 46-22-9.8 (2) of the General Laws.

(5) It is unlawful for the owner of any personal water craft or any person having charge of or control of a personal water craft to authorize or knowingly permit the same to be operated by a person under sixteen (16) years of age in violation of this section unless the provisions of (3) are met.

(6) No person shall operate a personal water craft within two hundred (200) feet of swimmers, divers, shore, or moored vessels, except at headway speed.

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(7) Personal water craft, when launched from shore or returning to shore, must proceed directly to the area where operation is allowed in a direction as near perpendicular as possible, and not in excess of headway speed.

(8) No person shall operate a personal water craft unless he or she and any passenger is wearing a personal flotation device which is approved by the United States Coast Guard.

(9) No person may operate a personal water craft in a reckless manner as to endanger the life. limb or property of another.

(10) No person shall operate any personal water craft unless it is numbered in accordance with section 46-22-4 of the General Laws.

(11) No person shall operate a personal water craft unless the personal water craft is equipped by the manufacturer with a lanyard-type engine cutoff switch which must be attached to the operator of the personal water craft.

(Code 1971, § 6-7; Ord. of 11-9-87(1); Ord. of 3-9-92; Ord. of 6-10-02)

State law references-Water skiing, G.L. 1956, § 46-22-12; personal water craft, G.L. Tit. 46, Ch. 27.

Sec. 4-8.1. Diving from bridges.

Any person who shall dive or jump into or otherwise enter the water from any bridge, bridge abutment, overpass, or other spanning structure, or shall give the indication of intending to dive, jump, or otherwise enter the water from any bridge, bridge abutment, or other spanning structure within the town shall be in violation of this section and subject to the fines set forth in chapter 1, section 1-9 of this Code. (Ord. of 9-11-06(1))

Sec. 4-8.2. Throwing debris from bridges.

Any person who shall throw, dispose of or otherwise drop any rubbish debris, trash or object of any type from any bridge, bridge abutment, overpass or other spanning structure within the town shall be in violation of this section and subject to the fines set forth in chapter 1, section 1-9 of this Code. (Ord. of 9-11-06(1))

provisions of the town to expend monies in the Harbor Management Program;

- 3. Upon referral from the town manager, hear appeals of any person aggrieved by a decision of the harbormaster in his/her enforcement of this ordinance in order to provide a recommendation to the town council for their final decision.
- b. Ex-officio members of the waterfront advisory committee:
 - 1. The harbormaster shall be a nonvoting, ex-officio member of the waterfront advisory committee.
 - To enable the waterfront advisory committee to coordinate issues of mutual concern between adjacent coastal municipalities, there may be one nonvoting, ex-officio member from each of the Harbor Commissions or Waterfront Advisory Committees of Charlestown and Narrangansett.

(Ord. of 3-9-92)

Sec. 4-4. Operation near public bathing areas.

No vessel, while being operated upon waters within the boundaries of the town, shall pass closer than one hundred (100) feet of an outer marker of a public bathing area on the shores of the waters of the town.

(Code 1971, § 6-2; Ord. of 11-9-87(1); Ord. of 3-9-92)

Sec. 4-5. Reckless or negligent operation prohibited.

(1) No person shall operate any vessel in a reckless or negligent manner so as to endanger the life, safety or property of any person.

(2) No vessel shall be operated in excess of five (5) miles per hour and/or create a wake within the Upper Point Judith Pond from Nun Buoy #26 to Nun Buoy #32. No vessel shall be operated at a speed in excess of steerage speed in the Upper Point Judith Pond, north of Nun Buoy #32.

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(3) No vessel shall be operated in excess of five (5) miles per hour and/or create a wake from Can Buoy #7 to Nun Buoy #24 on town waters in Point Judith Pond, from May 15 to October 1 of each year.

(4) No vessel shall be operated in excess of five (5) miles per hour and/or create a wake within the area from Hahn Avenue to four hundred (400) feet north of Radial Drive, in the Narrow River.

(5) No vessel shall be operated in excess of five (5) miles per hour in Green Hill Pond in the channel between Charlestown Bridge and a point approximately one quarter $(\frac{1}{4})$ mile east (north of Sagebed Island).

(6) The harbormaster shall cause buoys or signs marking the above restrictions to be placed so that they are clearly visible to those operating vessels within the waters wherein the above speed restrictions apply. Such buoys or signs will be maintained in place from May 15 to October 1 of each year.

(7) No person born on or after January 1, 1986 shall operate a vessel that is fitted with propulsion machinery of more than ten (10) horsepower on the waters of the town unless the person shall have successfully completed a boating safety education program as approved by the director of the Rhode Island Department of Environmental Management. Exceptions and penalties shall be the same as section 46-22-9.8 of the General Laws.

(Code 1971, § 6-3; Ord. of 11-9-87(1); Ord. of 3-9-92; Ord. of 8-11-92; Ord. of 6-10-02)

State law reference—Reckless operation of vessels, G.L. 1956, § 46-22-9)

Sec. 4-6. Passing other vessels.

Vessel operators shall use due and reasonable care in passing close to or near other vessels and shall slow to a reasonable and safe speed when passing rowboats, canoes, sailboats or other vessels not propelled by mechanical means. (Code 1971, § 6-4; Ord. of 3-9-92)

Sec. 4-7. Obedience to orders of harbormaster and police officers.

Vessel operators shall obey lawful directions given to them by the harbormaster or by any

BOATS AND WATERWAYS ORDINANCE

ARTICLE I. IN GENERAL

Sec. 4-1. Goals of the ordinance.

The goals of this chapter are:

- (1) To manage all waters and all harbor areas of the Town of South Kingstown, as described herein and hereafter referred to as the town, by establishing regulations that balance and manage the diverse uses of the coastal waters and waterfront in a manner which both protects the resources and minimizes user conflicts.
- (2) To provide a mechanism to ensure that the administration and operational costs of the ordinance and the Harbor Management Plan are shared by the Town of South Kingstown, private and commercial boaters, and other groups or individuals as may be identified in the ordinance.
- (3) To maintain public access opportunities to the waters of the Town of South Kingstown for the benefit of all user groups.
- (4) To maintain consistency with the following: the Town of South Kingstown Comprehensive Plan, 1992; the regulations of the Rhode Island Coastal Resources Management Council, Rhode Island Department of Environmental Management, and the United States Army Corps of Engineers; and the goals and policies of the State Guide Plan.

(Ord. of 3-9-92)

Sec. 4-2. Definitions.

For the purpose of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

Buoy numbers correspond to the United States Coastal Chart 13219, "Point Judith Harbor," 12th edition dated October 6, 2001, or as amended.

Motorboat means any vessel propelled in whole or in part by mechanical means, either inboard or outboard and using a motor powered by gasoline, diesel fuel, naptha, kerosene, steam or fuel oil or electricity.

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Vessel means every description of watercraft other than a seaplane on the water, used or capable of being used as a means of transportation on water.

Water means and includes all lakes, rivers, streams, ponds or other bodies of water located within or partly within the boundaries of the town.

(Code 1971, § 6-1; Ord. of 11-9-87(1); Ord. of 3-9-92; Ord. of 6-10-02)

Cross reference—Definitions and rules of construction generally, § 1-2.

State law reference-Similar definitions, G.L. 1956, § 46-22-2.

Sec. 4-3. Jurisdiction and authority.

(1) Jurisdiction. All waters and harbor areas of the Town of South Kingstown included under the jurisdiction and authority of this ordinance are those waters and harbor areas within the jurisdiction of the corporate boundaries of the town.

(2) Authority. The South Kingstown Waterfront Advisory Committee shall be the local body designated to oversee the implementation of the Harbor Management Plan and subsequent ordinances, subject to the approval of the Town Council and the Rhode Island Coastal Resources Management Council (CRMC), consistent with the powers, duties, and authorities granted under Chapter 4, Title 46, of the Rhode Island General Laws.

- a. Functions of the waterfront advisory committee:
 - Review and recommend to the town council the adoption of rules, regulations, fees, penalties, and other amendments to the Harbor Management Plan and its subsequent ordinances which may be necessary to fulfill the goals and objectives of the plan and meet the requirements of its ordinances. The Harbor Management Plan and its ordinances shall be reviewed and revised at least once every three (3) years;
 - Assist in the preparation of an annual budget in accordance with the

APPENDIX H

Storm Preparedness Plan

STORM PREPAREDNESS PLAN



TOWN OF SOUTH KINGSTOWN, RI



August 2009

100. Authority

The primary authority for carrying out the responsibilities detailed in this plan is vested with the Harbormaster, who will work in cooperation with the Waterfront Advisory Committee. However to successfully complete the activities outlined in this plan, the Harbormaster is required to work with other town departments including the: Planning Board, Police Department, volunteer fire departments, Planning Department, Building Official, Public Services Department and the Town Manager's Office. The Harbormaster shall be a member of the Local Hazard Mitigation Committee (LHMC).

200. Goals of the Storm Preparedness Plan

To prevent the loss of life and property by:

- properly preparing for storm events
- having a completed and enforceable response and recovery plan
- working in cooperation with harbor and shorelines users to ensure that a coordinated approach is applied to hazard mitigation
- integrating harbor hazard mitigation activities with other, ongoing, local hazard mitigation programs.
- identifying and completing long term actions to redirect, interact with or avoid the hazard.

300. Risk Assessment

310. General Harbor Characteristics

The bottom consistency of Point Judith Pond is mainly mud. The average depth in the pond is approximately four feet. The Narrow River has a sand and gravel bottom. The average depth in the river is approximately four feet.

The surrounding harbor uses can be divided into three general uses:

- 1. Open space approximately 20% of the South Kingstown waterfront is open space.
- 2. Residential this use totals approximately 80% of the land use. Generally, the single family dwellings are built upon lots that range from 10,000 square feet to one acre.
- 3. Commercial commercial waterfront uses such as marinas, vessel repair businesses and restaurants are located along the waterfront in Point Judith Pond and, to a limited extent, in Potter Pond.

320. High Hazard Areas

Historically, coastal flooding has always been significant during storm events in South Kingstown.

330. Risk Assessment Table

Threat	eat Marine Interest Effect		Result -1		Result -2				
Flood/surge		Boaters on moorin docks		ngs and	decreased sco		ope	Dragging	
			Lower		thre		thre hon	aten shoreline nes	
			Middle		threa busi		thre busi	aten shoreline	
				Upper			Severe bridge		ere threat to auto
Marina		Iarina fa	acility			flood	ed facili	ty	floating debris
						spills hazar mater	of dous rial		threaten surrounding
			Docks topping piles		g	freed docks and boats			
P		Priv	ate reside	ences				floo	oded property
						Dock piles	s toppin	ping freed docks and boats	
Wind Boaters on mooring Marina facility		oaters o	on moorin	igs		winda	age		Dragging or pennant
				wind debri	borne s		structural damage		

400. Strategies for Preparedness, Response and Recovery

410. Town of South Kingstown - The Harbormaster will coordinate all harbor activities related to preparation, response and recovery. This will be done in coordination with the Town Manager and applicable department heads including Public Services, Police Department, Planning Department and Building Official.

410.1 Preparedness - The Town of South Kingstown, through its Harbormaster, will activate the following preparedness, response and recovery plan 72 hours prior to a severe storm event or as necessary for unpredictable events.

LEVEL 3 - 72 HOURS

- 1. If hurricane, begin tracking and monitoring hourly weather reports
- 2. Contact any services under contract for after event to assess their readiness
- 3. Manage harbor traffic as it increases during marina/boater preparation activities
- 4. Ensure fuel tanks are full and reserve batteries are charged
- 5. Inventory and update first aid equipment and other onboard emergency tools
- 6. Contact local marinas and boat moving companies for status to relay to mariners.
- 7. Maintain radio watch

- 8. Alert local port community, encouraging boat owners to seek safe refuge, remove boats from water, or take action to minimize damaging effects
- 9. Alert local marinas, marine interests, holders of mooring permits, and occupants of special anchorage areas to impending emergency.
- 10. Keep Marine Safety Office (MSO) Providence appraised of hazardous conditions in harbor
- 11. Document waterfront using photographs or video
- 12. Start tracking time and resource allocations for possible state and federal reimbursement.
- 13. Post notice to have all vessels removed from Town docks.

LEVEL 2 - 48 HOURS

- 1. Continue to perform activities in level 3
- 2. Contact mooring permit holders who are not complying with preparedness plan.
- 3. Assist marinas/waterfront business with special requests
- 4. Continue to manage harbor traffic as it increases
- 5. Finalize emergency work schedule with assistant Harbormasters
- 6. Confirm arrangements to have Harbormaster vessel hauled and stored
- 7. Preparation of town properties with department of public works, that includes:
 - removing all town equipment from flood plain
 - securing all items such as trash bins, benches, etc..
 - complete necessary precautions for Harbormaster office
- 8. Establish liaison with police, fire and public works departments
- 9. Alert maritime community to unsafe conditions in the harbor as needed
- 10. Curtail regular business activities
- 11. Begin regular patrols of the harbor to ensure necessary individual precautions are begin taken
- 12. Advise MSO Providence as to the status of emergency preparedness in progress
- 13. Alert local harbor community to any impending closure of anchorages or waterways.
- 14. Encourage local marinas to suspend fueling operations and to secure fueling piers sufficiently to minimize pollution threat.
- 15. Inventory of individuals who plan on staying on their moored vessels during the storm event.

LEVEL 1 - 24 HOURS

- 1. Final patrol of the harbor
 - inventory number of vessels and precautions taken by harbor and shoreline users
 - clear public pier of vessels and equipment
- 2. Log information on transient boats (see section 425.2)
- 3. Fuel Harbormaster vessel
- 4. Haul and store Harbor Patrol vessel with assistance of the Department of Public Services
- 5. Complete shoreline survey and final harbor check from shore
- 6. Alert harbor community and MSO to any unsafe conditions in harbor
- 7. Continue to perform pertinent level 2 activities.
- 8. All vessels must be removed from town docks at this time. Transient moorings will not be allowed to be used during any storm event.
- 9. Raise hurricane signal twelve hours prior to storm's arrival

410.2 Response

The Town of South Kingstown's policy is that no emergency watercraft will be dispatched for emergency response during a storm event. All requests for assistance will be forwarded to the nearest Coast Guard Station. This policy will remain in effect unless revoked by the Town Manager. The Harbormaster will remain on-call to address any harbor related issues. This will also allow the Harbormaster vessel to begin operation immediately at the conclusion of the storm. The Harbormaster shall monitor police, fire and marine frequencies throughout the event.

410.3 Recovery - Immediately after the event has terminated, the town has three recovery priorities.

Priority 1: Reestablish the Harbormaster's Office as an operational unit in order to facilitate the second and third priority

Priority 2: Take the necessary immediate action to minimize additional risk to life and property.

Priority 3: Reopen the harbor for recovery activity.

To achieve these priorities, the following sequential actions will be taken:

IMMEDIATE 24 HOURS

- Assess readiness of the Harbormaster's Office, correct deficiencies

 reestablish radio communications.
- 2. Complete rapid appraisal of damage
- 3. Provide damage assessment information to town officials and to MSO Providence.
- 4. Initiate pre-established contracts services companies (towing, salvage) if required
- 5. Institute security watches as necessary
- 6. Alert maritime community to unsafe conditions in the harbor
- 7. Provide damage assessment information to town officials and to MSO Providence
- 8. Track time and resource allocation of Harbormaster's Office for possible state and federal reimbursement.

MID-TERM 1 TO 14 DAYS

- 1. Complete comprehensive inventory of damage using photographs and video if possible
- 2. Notify appropriate parties regarding damage (i.e., mooring holders)
- 3. Provide list of unidentified boats to MSO Providence and DEM Enforcement

- 4. Contact local harbor and shoreline users to assess their situation
- 5. Provide MSO Providence with a daily harbor status.
- 6. Begin to remove large pieces of floating debris from the harbor
- 7. Assist town and state agencies with damage assessments and emergency permitting process.

LONG-TERM 14 TO 90 DAYS

- 1. Analyze effects of storm on the harbor. Complete summary report within 30 days of storm event for Town Council and Town Manager.
- 2. Review mitigation list and selection actions that could be implemented during the recovery phase
- 3. Conduct an evaluation meeting for harbor and shoreline users to identify problems not properly addressed by this plan
- 4. Complete a survey of boat damage
- 5. Update hazard mitigation plan and identify new mitigation opportunities
- 7. Assist emergency situations as appropriate
- 8. Track time and resource allocations for possible state and federal reimbursement.
- 420. Harbor and Shoreline Users
- 420.1. Marina facilities

As part of the Town of South Kingstown's Store Preparedness Plan. all marina facilities as defined by CRMC, will submit a storm preparedness plan to the Harbormaster within 90 days of this document being approved. The facility's plan will be updated annually and any changes will be reported to the Harbormaster by January 1 of each year.

Facility plans will include:

- Primary contact person primary and secondary phone numbers.
- VHF channel that is monitored
- List of facility staff who are expected to assist in preparation, response and recovery phases.

• List of hazardous material stored on site (i.e. waste oil, fuel tanks, solvents). This information can be extracted from the facilities Environmental Operations and Maintenance Plan.

• Inventory of potential recovery equipment (heavy equipment, generators), including outside contracts for special equipment for recovery phases

• Debris disposal plan

- Special assistance requested from town
- List of preparation, response and recovery activities and timing

420.2. Boaters

Boats moored on possible town managed moorings will be required to submit a preparedness plan. This will be accomplished by adding a preparedness plan questionnaire as part of the annual mooring renewal forms. For a mooring permit to be approved, the questionnaire must be completed and returned with the mooring application. Boaters will be expected to comply, to the best of their ability, with the plan they have prepared. The boat owner should advise the Harbormaster of any significant changes to the plan made during the boating season.

Mooring standards have been developed to maximize safety during normal weather conditions. To safeguard a moored boat during a severe storm event, additional precautions will be necessary. These actions will include:

• Improving the connection between the vessel and the mooring chain by using chafing gear and extra lines.

- Reducing windage
- Whenever possible, increase scope.

Boaters should also consider:

- Bypassing the mooring swivel and attach the chain directly to the pennant.
- Hauling their boat and storing it upland
- Leave anchor lights and auto bilge pumps on.
- Ensure that self-bailing cockpit drains are clear of debris
- Add an emergency catenary weight at the vessel end of the chain to absorb shock

Boat owners are encouraged \underline{NOT} to stay aboard during major storm events. The town's standard procedure is not to respond to on-the-water requests for assistance during a major storm event. Such requests for assistance will be forward to the nearest U.S. Coast Guard Station.

420.3. Waterfront business (excluding marinas) - All waterfront business are expected to take the necessary precautions to protect their property.

420.4. Shorefront home owners- All shorefront homeowners are expected to take the necessary precautions to protect their property.

421. Special Hazards

- 1. Town Docks- all vessels shall be cleared of the town commercial dock 72 hours prior to expected storm event.
- 2. Transients- vessels not usually moored in the harbor, but seeking safe refuge will be allowed to moor in the specified anchorage areas. Transit yachts will not be allowed to tie to a

mooring if not authorized by both the mooring owner and the Harbormaster. Transient vessels seeking shelter will provide the Harbormaster with:

- name of owner and captain if different.
- home port
- registration/documentation numbers
- length, draft and type (power/sail)
- number of persons aboard
- address and phone were owner can be contacted
- 3. Passenger vessels and ferries- As deemed necessary by the Harbormaster, local passenger vessels and ferries will submit individual plans to the Harbormasters. These plans will include information about planned preparedness, response and recovery actions.

500. Inventory of longer term mitigation projects

- 1. Maintaining the existing seawalls. Although it does not provide complete protection, there is a measure of safety gained by having the seawall properly maintained.
- 2. Methods to increase scope within the harbor without losing surface area maximization should be explored. Actions may included a targeted approach to removing vessels from moorings and increasing the scope with storm pennants for those that remain. In the existing mooring configuration, increasing mooring scope is difficult. Therefore, the town should explore alternative methods for gridding the mooring field that will allow space maximization and increased scope.
- 3. Implement an annual education and training program conducted by the Harbormaster for the public. This program should focus on storm preparedness for the boater. Other workshops should be conducted with the help of the building inspector and planning board to discuss shoreline construction standards and storm proofing homes and business.
- 4. The Harbormaster should compile a list educational material that can be shared with harbor and shorefront users.

5. Maintain an accurate lists of principle marine interests including marinas, waterfront business, neighboring Harbormasters, Coast Guard, Towing and Salvage Companies, Environmental Response teams, Key vessel operators (charter boats and ferries) fishing cooperatives, etc.

- 6. Starting at the beginning of each hurricane season (June 1) the Harbormaster shall:
 - review local harbor hazard mitigation plan and update as necessary
 - distribute and post revised plan
 - inspect all storage sheds, outbuildings, and portable office trailers for proper tie-down.
 - inspect all emergency power sources and lighting systems to ensure they are operational
 - prepare and distribute a storm checklist for to boaters

- 7. Conduct a Disaster Mitigation workshop for Business and Industry in cooperation with RI Emergency Management Agency. Propose activities that can be implemented to mitigate damage. Suggested actions for local coastal business may include:
 - Place more essential equipment and functions on higher levels of the structure, above the anticipated flood level;
 - Construct berms around the facility;
 - Install or have dewatering pumps;
 - Provide emergency generators and potable water storage;
 - Install blowout plugs in floor slabs whose elevation is below anticipated flood elevation.
 - Install master shutoff valve controls for sewer, gas, and water above anticipated flood elevation;
 - Reinforce walls to carry hydrostatic and hydrodynamic loads;
 - Install flood proof electrical systems and utility cores in areas subject to flooding; and
 - Install safety glass in windows.
- 8. Assess the feasibility of developing a volunteer corp who can assist the Harbormaster secure vessels during the phase or maintain security patrols after an event.

600. Coordination

A Memorandum of Agreement shall be entered into with the Department of Public Services and/or Police Department to establish the working relationship between it and the Harbormaster for completing the following activities: preparing public waterfront property and hauling and storing the Harbormaster vessel

The harbor commission shall work with the planning board and planning department to establish redevelopment policies for shoreline areas. These policies will be consistent with CRMC and DEM regulations.

In order to discourage redevelopment of critical shoreline areas and to reduce vulnerability of life and property to coastal hazards the town should:

- 1. encourage and participate in the maintenance, restoration and enhancement of beaches and dunes.
- 2. limit development and redevelopment in hazardous coastal areas to protect lives and property from coastal storms and hazards. Post storm development shall avoid extensive rebuilding and intensification of land uses in critical areas and encourage reductions in the amount and intensity of development in order to reduce exposure of lives and property to coastal hazards.
- 3. attempt to minimize public expenditures and reduce risk to public infrastructure and facilities through redevelopment
- 4. encourage relocation of structures landward of critical areas. This can be done by influencing State policies, expenditures, and programs to reduce the amount and intensity of development and redevelopment
- 5. require shorefront areas replacement of non-conforming uses and eliminate unsafe conditions and inappropriate uses as opportunities arise

6. identify shorefront areas that shall be subject to post-storm regulations and acquisition in order to reduce loss of life and damage to property.

In order to further coordinate local policies contained in the comprehensive land use plan for resource protection, coastal management, the town should consider the following policies.

- 1. The town should work with appropriate state agencies to ensure that Post-storm shoreline management options for shoreline areas shall be consistent, to the extent possible, with use, density and other land uses policies and standards contained in the comprehensive land use plan.
- 2. Create local priorities for acquiring coastal properties to promote hazard mitigation, public recreation, and resource management objectives contained in the comprehensive plan.
- 3. Post-storm redevelopment options should consider impacts to evacuation routes, as determined by emergency management officials.
- 4. maintain and or adopt minimum parcel size and configuration requirements on the subdivision of critical shoreline features.
- 5. discourage platting of shoreline properties and encourage re-platting to accommodate post-storm relocation of structures landward.

THE SAFFIR-SIMPSON HURRICANE SCALE

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf in the landfall region. Note that all winds are using the U.S. 1-minute average.

Category One Hurricane:

Winds 74-95 mph (64-82 kt or 119-153 km/hr). Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage.

Category Two Hurricane

Winds 96-110 mph (83-95 kt or 154-177 km/hr). Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.

Category Three Hurricane

Winds 111-130 mph (96-113 kt or 178-209 km/hr). Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Flooding near the coast destroys smaller structures with larger structures damaged by battering from floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

Category Four Hurricane

Winds 131-155 mph (114-135 kt or 210-249 km/hr). Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km).

Category Five Hurricane

Winds greater than 155 mph (135 kt or 249 km/hr). Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.

APPENDIX I

Zoning Maps





APPENDIX J

Water Quality Certificate WQC File No. 10-012


RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RJ 02908-5767

TDD 401-222-4462

November 2, 2010

Town of South Kingstown Attention: Mr. Raymond Nickerson 180 High Street Wakefield RI 02879

RE: Water Quality Certificate – South Kingstown Harbor Management Plan WQC File No. 10-012

Dear Mr. Nickerson,

The RIDEM-Office of Water Resources (OWR) has reviewed the Town of South Kingstown's Harbor Management Plan for compliance with the State Water Quality Regulations.

We have reviewed the subject application and document entitled "Town of South Kingstown, RI Harbor Management Plan" dated September 2010.

It is the opinion of the Water Quality Certification Program that said project is in compliance with the requirements of the State Water Quality regulations provided that the applicant complies with the above plans and the following conditions.

 The management of all harbor activities under the Town of South Kingstown's authority shall be managed in accordance to the regulations and ordinances compliand in the above referenced Harbor Management Plan.

This is the Water Quality Certification for the Town of South Kingstown's Harbor Management Plan. Violation of the terms and conditions of this Certification may result in violation of the State's Water Quality Regulations and appropriate enforcement action.

Sincerely -9

Angelo Liberti, P.E. Chief Surface Water Protection

Co: Joe Migliore, RIDEM Grover Fugate, RI CRMC Kevin Cuto, RI CRMC

Office of Water Resources/Surface Water Protection/Tel.401-222-4700/FAX 201 22231 22231 22231 22231

APPENDIX K

Town Council Adoption



Town of South Kingstown, R.I.

TOWN CLERK'S OFFICE

CLERK OF THE TOWN COUNCIL AND PROBATE COURT

Town Hall, 180 High Street Wakefield, Rhode Island 02879

Dale S. Holbertan Towr Clerk & Prubate Clerk 401-789-9831

> At a REGULAR SESSION of the Town Council of the Town of South Kingstown, County of Washington, in the State of Rhode Island, held at the Town Hall, in and for said Town on the 28th day of February A.D., 2011 at 7:30 PM.

> > PRESENT: Ella M. Whaley, President Carol Hagan McEntee, Vice President Mary S. Eddy Kathleen A. Fogarty James W. O'Neill

UNANIMOUSLY VOTED: to adopt the updated Harbor Management Plan dated September 2010, as prepared. Further, to formally submit said updated Harbor Management Plan to the Rhode Island Coastal Resources Management Council for their review and action, as addressed in the memorandum from Principal Planner Nickerson to the Town Manager, titled "Review of Harbor Management Plan Update," dated February 22, 2011.

A TRUE COPY

ATTEST

Dale S. Holberton, Town Clerk